

FLOOR LEVELLING COMPOUNDS



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| | | |
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www.ardex.com



About ARDEX

ARDEX specializes in high-quality construction materials for substrate preparation, levelling floors, waterproofing, the fixing of natural stones & ceramic tiles and other surfacing materials. ARDEX offers innovative products of outstanding quality and optimal environmental friendliness, as well as providing training and support services for their application. The ARDEX Group comprises of 28 subsidiaries and some 1,400 employees active in offices and branches in more than 50 countries.

The history of ARDEX can be traced back over 50 years to Witten, Germany where ARDEX Chemie GmbH was founded by Herr and Frau Fortmann and Dr. Kraft. Products such as **Ardurit Z8** and **Ardur K15** are firmly established as benchmarks for flooring products worldwide.

In December 2001 ARDEX acquired Norcros Building Products (NBP) Australia. The latter has a similar heritage in the Australasian market with **ABA tile adhesives** – renowned for their quality and technical excellence, a reputation built over 30 years. Innovations such as Abaflex are unique in the market until this day. Other brands offered by NBP Australia include **Superflex** under-tile waterproofing systems, **Shelter (previously Dunlop)** sheet membrane systems and **Hydrepoxy** coatings. In 2002 **Vibro Products Pty Ltd**, manufacturers under licence of ARDEX floor levelling and adhesives, was acquired and integrated into ARDEX Australia.

These brands, leaders in their respective fields, come together under the ARDEX Australia umbrella, offering you expert solutions. In addition, sharing of resources and technology within our extensive network enables us to provide you with a broader range of world benchmarked products and services.

Make ARDEX your single point of contact for all your flooring, tiling and waterproofing needs.

ALSO AVAILABLE FROM ARDEX AUSTRALIA:



Comprehensive range of waterproofing solutions for various internal and external applications, including: rooftops, tanking, retaining walls, façade etc. Encompasses a variety of technology from bituminous and butynol sheets membranes, water based epoxies, acrylic and polyurethane membranes.



Comprehensive range of tiling solutions for various internal and external applications including: kitchens, bathrooms, floors, wall, balconies etc. Encompasses adhesives, grouts, soundproofing and silicones.

For technical advice contact 1800 224 070



Guide to Floor Levelling Compounds

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SUB-FLOOR PREPARATION

**With Priming Instructions for ARDEX
Underlayments & Toppings**

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Sub-Floor Preparation with Priming Instructions

For ARDEX Underlayments and Toppings

SUBSTRATE PREPARATION

The key to success when installing ARDEX products is to achieve a good bond between the substrate and the underlayment or topping. Proper preparation of the surface is the most important factor in achieving this bond.

Whatever topping or underlayment is used to level, smooth or repair a substrate's surface, it will only be as strong as the surface to which it is bonded. The surface, therefore, must be sound, clean and free of oil, grease, wax, dirt, asphalt, curing compounds, latex and gypsum compounds, dust, paint or any contaminant which might act as a bond breaker.

The methods required to properly prepare the sub-floor vary with the type of substrate, its surface and condition. Many times, several methods of preparing a substrate are available. Some methods are used because they are cheaper, easier or faster, depending upon the size of the job. However, taking short cuts in proper substrate preparation can be an invitation to installation problems and failures.

This brochure is by no-means an all-inclusive guide, but is intended to give recommendations for many common substrate conditions and the proper preparation.

CONCRETE

Concrete floors must be solid; overwatered, frozen or otherwise weak concrete must be removed mechanically to provide a sound base. In addition, concrete should be evaluated for moisture content and be free of oil, grease, wax, dirt, asphalt, curing compounds, latex and gypsum compounds, dust, paint or any contaminant which might act as a bond breaker.

New Concrete: There are two important reasons to avoid the installation of ARDEX products over concrete, which is less than 28 days old:

1. Drying and shrinkage cracks may occur as the concrete cures. Installing ARDEX products over "green" concrete will result in the cracks telegraphing through the ARDEX layer as they develop in the concrete. To avoid this, allow the concrete to cure a minimum of 28 days and repair any cracks before proceeding with the installation of the ARDEX material.
2. ARDEX primers must be installed over a completely dry surface to assure proper bonding. Under many conditions concrete may not be free of excess moisture before 28 days. (See back page for proper primer selection and priming instructions.)

Moisture: Neither ARDEX primers nor levelling or patching products create a moisture barrier. If the concrete slab is dry enough to allow the primers to dry, but still has a moisture content exceeding the specifications of a flooring system, the moisture could migrate through a ARDEX underlayment or topping and affect the bond of the flooring adhesive.

NOTE: ARDEX underlayments and toppings are intended for interior use over dry substrates only. Do not use in areas of constant water exposure nor in areas exposed to permanent or intermittent substrate moisture, as this may jeopardise the performance of the underlayment and the floor covering system. ARDEX primers, underlayments and toppings are not vapour barriers and will allow free passage of moisture. Follow the directives of the floor coverings manufacturer regarding the maximum allowable substrate moisture content by testing the substrate and take the necessary corrective action prior to installing ARDEX underlayment sand toppings.

Power-trowelled (burnished) concrete and Hi-strength concrete greater than 35 MPa. Burnished concrete finishes, Hi-strength concrete greater than 35 MPa such as post tensioned, suspended concrete, off-form concrete etc, represents a finish that is extremely dense (non-porous) and with no surface profile. Adhesion to these concrete finishes without mechanical preparation is questionable. It is recommended to remove the glazed/dense surface finish to provide a roughened open porous matrix of the concrete, suggested preparation methods are Shot-blasting, Scarifying and similar methods, or contact ARDEX Technical Services.

Forced Drying: If forced drying of the concrete slab is used, care must be taken that no oils are present in the air source. Also, if entire rooms are heated by salamanders or other heaters using fossil fuels, the exhaust must be vented. This will prevent carbon dioxide from combining with calcium hydroxide in fresh concrete which can form a weak layer of calcium carbonate on the surface; a process known as carbonation. If carbonation does occur, the floor must be mechanically cleaned.

Curing Compounds: Curing compounds are bond breakers, which will inhibit the ability of an underlayment or topping to bond to the concrete substrate. Regardless of the type of curing compound used, even dissipating curing compounds, it must be completely removed prior to proceeding with the installation of the underlayment or topping.

Acrylic Sealers: Acrylic sealers do not oxidize and flake off from exposure to ultraviolet light and air. Although some acrylic sealers contain no bond-breaking oils, waxes, resins or rubbers, a good bond cannot be guaranteed. Therefore complete removal is required.

Laitance, Weak Surface Areas and Frozen, Frost-Damaged or Overworked Concrete: These surfaces are unsuitable for toppings or underlayments. Any signs of spalling, scaling, delamination, crumbling or laitance must be removed down to solid, clean concrete. A hammer or heavy instrument should be used to sound out weak, hollow and unsound material.

Contaminated Concrete: All oil, grease, wax, dirt, chemicals, asphalt, latex and gypsum compounds, dust, paint, or any contaminant which might act as a bond breaker must be completely removed before installing an underlayment or topping.

Oil and Grease: Cementitious underlayments or toppings will not bond to a concrete substrate, which is contaminated with oil or grease: even trace amounts of oil will prevent a good bond. Chemical methods may be successful at removing oil if it has not penetrated too deeply, however, the material used to remove the oil or grease may itself leave a contaminant behind. To remove any doubt, the substrate should be cleaned down to sound, solid, uncontaminated concrete.

Asphalt and Tar-Based Residues: Although quite different in composition, both asphalt and coal tar-based residues on concrete substrates pose their own threats to the performance of an underlayment or topping. Roofing asphalt is often found on concrete roof decks upon which new floors are to be built. Tar products can also be found as a contaminant in these vertical expansion projects, as well as in the adhesive used on old wood block floors in warehouses and factories.

All asphalt and coal tar-based materials found on concrete substrates to receive any topping or underlayment must be completely mechanically removed down to clean, sound, solid concrete prior to the installation of any underlayment or topping.

Lightweight Concrete: Structural lightweight, pre-cast light weight panel and lightweight screeds, vary greatly in density and compressive strength.

Lightweight insulating concrete sub-floors are typically used for sound or thermal insulation and are not structural, have low compressive strengths, and exhibit soft, weak surfaces. These substrates are not suitable for the installation of ARDEX underlayments or toppings, as they do not provide a solid, structural surface, which can serve as a substrate. Cellular lightweight, vermiculite, gypsum, perlite and other lightweight fill materials are typically used in this category of insulating concrete.

As the condition and composition of light weight concrete varies greatly, we always recommend the installation of test areas to determine the suitability of the installation for the intended use and to ensure that the lightweight concrete has cohesive integrity to remain bonded within itself.

RECOMMENDED METHODS OF PREPARING CONCRETE SUBSTRATES

The best way to remove any contamination in a concrete substrate is by an approved mechanical method. Mechanical cleaning removes the contaminant and the concrete to which it is adhered leaving only a clean, sound and solid surface behind. ARDEX recommends that all concrete substrate preparation proceeds using one or more of the following mechanical methods: shotblasting, scarifying, diamond grinding/shaving, sandblasting, scabbling (bush hammering) and chiselling.

Mechanical abrasion methods such as scarifying, scabbling and chiselling are aggressive methods, which are recommended to remove unsound areas. Diamond

grinding/shaving can also be effective but are slow for large areas. Sandblasting is an excellent method of cleaning weak surface areas, if environmental restrictions permit its use.

One of the most cost-effective methods of removing a wide variety of contaminants from a large area of concrete is to use shotblasting. Using different sizes of steel "shot", a shotblast machine can remove a variety of sealers, coatings, curing compounds and other contaminants quickly and effectively, leaving behind a surface which is ready to receive the specified underlayment or topping.

The best way to remove most contaminants is by scarifying, shotblasting, diamond grinding/shaving or mowing or by similar mechanical methods. Removal must be deep enough to eliminate all penetrated contaminants.

METHODS TO AVOID

Acid Washing (Acid Etching): This method is not recommended because it is difficult to control and to fully remove the residue and properly neutralize. Further, the acid can penetrate into the porous concrete and chemically react with the cement, thus affecting the long-term integrity of the concrete. Acid washing will not satisfactorily remove grease and oil.

Solvents: All types of solvents should be avoided. Their use will drive oil, grease and other contaminants further into the concrete, only to permit their release back to the surface at a later time. Physically removing oil-contaminated concrete is the only sure way to ensure a clean substrate.

Sweeping Compounds: Can leave an oily or waxy film on the surface of the concrete. Their use can create a bond-breaking layer, which will result in a flooring system failure. Using a dry clean broom sweep and vacuum surface prior to placing any underlayment or topping.

Adhesive Removers and Solvents: Never use adhesive removers or solvents to remove contaminants from porous concrete. These materials can carry contaminants into the pores of the concrete, which later migrates back to the surface and resulting in a floor covering bond failure.

ADHESIVE OVER CONCRETE

Old Adhesive know the risk

It is well known that to eliminate the risk factor in relation to old adhesives, paving paint, curing membranes etc., it is necessary to remove them entirely from the substrate before a levelling compound is installed, as laid down by the Australian Standards and many manufacturers procedure recommendations.

This can easily be achieved by mechanical means such as shot blasting, scarifying or diamond grinding/shaving. However, on many occasions, contractors and installers are faced with making the decision to either remove the old adhesive (coating) or to install over them. Their

Sub-Floor Preparation with Priming Instructions

For ARDEX Underlayments and Toppings

decision may be forced upon them due to a variety of reasons such as size of area, budget and time allocated to do the job. But before going over the adhesives and compounds, it is worth taking the following into account.

To provide a primer or system to adequately bond to most of these compounds isn't the problem, but you are then relying on the standard of the previous preparation, the bond strength of the old adhesive and of course the cohesive strength, in itself, of the adhesive or coating.

Taking this in mind be wary of the person who gives you a false sense of security by claiming his product can bond to any surface and therefore suggesting you don't have to remove the old coatings. The risk of the old adhesive (coating) lifting from the substrate or indeed splitting within itself can sometimes be very high depending on the type of floor covering, the environment and usage.

Certain products can have a high surface tension, putting enormous pressure on the old adhesive such as parquetry. Sadly we see so many floors that have to be replaced because of inadequate preparation or wrong advice given regarding the removal of old adhesives.

Some adhesives, such as the old bituminous types (Black Jack) may be reactivated by the new adhesive and in time cause underlayment and subsequent floor covering failure. In this case it may be worth considering total removal of the adhesive or use a levelling compound such as ARDEX ARDITEX at 3mm thick to provide a barrier, which will ensure the old adhesive, isn't reactivated by the new.

The following figures are results from on-site pull up tests and vary with different manufacturers and of course the degree of water solubility.

| COMPARISON RISK FACTOR TO BONDING TO CLEAN SOUND CONCRETE | |
|---|---|
| Pressure sensitive adhesive | 13 times greater risk |
| Bitumen adhesive | 8 times greater risk |
| Carpet adhesive | 6 times great risk |
| Rain Damaged Concrete | Many times greater risk (dependant on water/cement ratio) |

In summary, if you have to go over these adhesives and compounds, try and reduce the risk factor as much as possible by using the correct primer and levelling system for the job.

Contact any ARDEX office for advice on the correct primer and for any technical assistance needed.

CRACKS AND JOINTS

Crack Repair: All cracks in new and old concrete should be repaired to inhibit their ability to reflect or telegraph up into the surface of a bonded topping or underlayment. However, it is still possible that some cracks will reflect into the surface. In most cases, these are small, hairline cracks do not pose a threat to the performance of the underlayment, topping or floor covering to be installed.

Large dormant cracks such as those typically found due to settlement or in control joints can be cleaned out, opened up with a crack chaser where necessary, and patched with a suitable cementitious patching compound such as ARDURAPID K 45 S or FEATHER FINISH.

If cracking is active, structural defects must be remedied before attempting to repair the cracking. Consult with an engineer on the project or request the services of a structural concrete repair professional to deal with cracking repair methods such as gravity filling small cracks (1mm max. width) with epoxy. If the crack is larger or extends entirely through the concrete slab, the use of epoxy injection following manufacturer's instructions is often recommended.

Expansion or Isolation joints: Such joints are designed into the building and their integrity must be maintained. Do not install any topping or underlayment product over a joint which is designed to allow differential movement between concrete pours. CONTINUE ALL MOVING JOINTS IN THE SLAB UP THROUGH THE UNDERLYAMENT OR TOPPING.

WOODEN SUB-FLOORS

Although the preparation required on the surface of wooden sub-floors is the same for any type of wooden substrate, a distinction must be made with regard to the suitability of certain types of wooden substrates depending upon the product being installed. For applications requiring a self-levelling underlayment such as ARDEX K-15, the sub-floor must be a minimum of 3/4" tongue and groove APA-rated Type 1 exterior exposure plywood. Solid hardwood flooring such as stripwood is also acceptable as a substrate. The wood sub-floor must be structurally sound and solid, fixed securely and must conform to local building codes. To provide a solid base, re-nail all boards or plywood panels exhibiting movement. Open joints should be filled with ARDEX SD-F Feather Finish.

There are also a variety of other types of wooden sub-floors which are recommended by flooring manufacturer's for certain grades or types of floor covering. Masonite, M.D.F. Board and certain plywoods, and other types of wood composites may be recommended as being suitable to receive a certain manufacturer's flooring. If the manufacturer of the finished goods approves that substrate as being suitable, and the surface requires smoothing or flash patching, ARDEX SD-F Feather Finish can be used over any type of wood. The installation of the underlayment board must be performed in strict accordance with the manufacturer's written instructions. Do not use ARDEX Feather Finish as a short cut to bypass specific installation

instructions such as sanding the surface of the underlayment board unless the manufacturer permits the use of a skimcoat product.

NOTE: Uneven wooden sub-floors may be pre-levelled with ARDITEX prior to installation of the underlayment board. ARDITEX Self-Smoothing Cement is also ideal for smoothing or levelling of uneven structural timber flooring prior to the installation of carpet floorcoverings.

The surface of any type of suitable wooden sub-floor must be clean and free of all oil, grease, wax, dirt, varnish, shellac, or any contaminant which might act as a bond breaker. Sand the wooden sub-floor, using a coarse abrasive, to remove all foreign matter and "Protective Coatings" to provide a clean mechanical surface.

Vacuum all dust and debris. A commercial drum sander can be used to sand larger areas.

Do not use solvents, strippers or cleaners to remove contamination from the surface of the wood. Only clean, bare wood is a suitable surface. If contamination exists which cannot be effectively removed, an overlay of 12mm plywood may be used as an alternative to complete removal and replacement of the wood.

NON-POROUS SUBSTRATES

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to **ARDEX Technical Services Hotline 1800 224 070**.

Smooth, dense and solid substrates such as, ceramic and quarry tile, natural stone, cementitious and epoxy terrazzo, and solidly bonded epoxy coatings can be smoothed with an ARDEX underlayment prior to the installation of new flooring. The surface of these substrates must be clean and free of all contaminants including oil, grease, wax, etc. Due to the non-porous character of these substrates, sealers, dressing and surface treatments can often be completely removed effectively using professional stripping agents. As an alternative and where stripping is not a sufficient technique, mechanically cleaning of all of the above non-porous substrates can be used to remove all foreign matter.

Please note that all hard surface tile substrates must be thoroughly evaluated for the bond of the individual tiles. All tiles which are not solidly bonded must be completely removed, to include the setting mortar, down to clean, sound, solid concrete.

Caution: Epoxy coatings may be suitable as a substrate to receive certain ARDEX products. It is imperative that the soundness of the coating be evaluated thoroughly as to the strength of its bond before attempting to install and underlayment product over it. One way of ensuring a good bond is to attempt mechanical removal. If removal is difficult or impossible, install a test area as recommended below. If removal can be done readily using a mechanical method, continue removal to clean, sound, solid concrete.

METAL SUB-FLOORS

Metal sub-floors are found in certain hospital applications as well as on naval and commercial sailing vessels. For example, lead*, aluminium, or copper* foil installed over a concrete substrate are used to shield X-ray and MRI testing rooms in hospitals. Naval vessels and commercial cruise liners and casino boats likely have steel decking as the sub-floors throughout the ship. Such surfaces often need to be smoothed with a cementitious underlayment prior to the installation of new finish flooring.

All metal sub-floors must be clean and free of rust, oil, grease, and all other contaminants. Steel decking must be structurally sound and properly anchored. Metal foils must be solidly bonded 100% to the substrate.

Remove oil and grease in accordance with S.S.P.C.-SP1 solvent cleaning - Brush Blast to obtain a Mechanical Profile for Coating Adhesion,(as per the Coatings Manufacturer's written instructions) and remove rust and other contaminants from the surface of the metal. For steel decking, paint the surface with an anti-corrosive coating to prevent rust from recurring. Aluminium flooring oxidises and also requires a protective coating.

*Copper and lead refer to ARDEX Technical Services.

The only system ARDEX promotes to smooth metal substrates is the ARDEX K-15 + A-25 Underlayment System over Metal Decking. Specific instructions for this installation are available from the ARDEX Technical Services.

TEST AREA

Although we have presented a variety of substrate conditions and offered technical recommendations for each, we cannot anticipate every possible condition that a substrate may be in. For this reason, we recommend that this guide be used as a general reference for preparing substrates to receive ARDEX products, and that a test installation be placed to ensure suitability as follows:

Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its intended use. As floor coverings vary, always contact and rely upon the floor-covering manufacturer for specific directives to include such requirements as maximum allowable moisture content, adhesive selection, and intended end use of the product.

PRIMING

ARDEX 51 CONCENTRATED PRIMER

For Standard Absorbent Concrete ARDEX 51 Primer is for use over standard absorbent concrete only. ARDEX 51 seals the substrate and improves the bond of ARDEX products. Concrete sub-floor must be clean, solid, dry and properly primed for a successful installation. Shake well and mix ARDEX 51 1:2 with water and apply with a soft pushbroom (Do not use paint rollers, mops or spray equipment). Do not leave any bare spots. Remove any

Sub-Floor Preparation with Priming Instructions

For ARDEX Underlayments and Toppings

puddles and allow to dry to a clear, thin film (3 hours min., 24 hours max.) Low substrate temperatures and/or high ambient humidity require a longer drying time. Do not install ARDEX products until primer has dried thoroughly. Very absorbent concrete may require two applications of primer to avoid bubbles and pinholes in the levelling compound. In such cases, make an initial application of ARDEX 51 diluted with 3 parts water. Let dry thoroughly and install a second application of ARDEX 51 diluted 1:1 with water.

Coverage: 6 – 10m² per litre

Drying Time: 3 – 24 hours

Shelf Life: One year

Storage: Store in cool, dry place. Protect from freezing.

Packaging: 5 litre container

Non-toxic, Non-explosive, Non-flammable

Refer to Material Safety Sheets for ARDEX 51

ARDEX 82 ULTRA PRIME FOR NON-POROUS SUB-FLOORS, WOOD

ARDEX 82 Ultra Prime high-strength, solvent-free primer improves the adhesion of ARDEX products over smooth, non-absorbent substrates such as ceramic and quarry tile, terrazzo, marble and metal decking. ARDEX 82 Ultra Prime is also used over wooden sub-floors including plywood and stripwood, and smooth (burnished finished) concrete.

Sub-Floors must be solid, clean and, if required, professionally stripped.

Mix Red Part A with White Part B and apply with a short-nap or sponge roller, leaving a thin coat of primer no heavier than a thin coat of paint. To a transparent pink film. Do not use mops or spray equipment. Do not leave any bare spots. Brush off puddles, excess primer and accumulations in places such as grout lines.

Caution: ARDEX 82 Ultra Prime should be applied in a thin layer within one hour of mixing. A thick coat will produce a soft and rubbery surface which can result in cracking of the ARDEX underlayment or topping. Allow to dry several hours (3 hours min., 24 hours max.) to a clear, slightly tacky film. Low substrate temperatures and/or high ambient humidity require longer drying times. Primer can also be allowed to dry overnight. Do not install ARDEX products until primer has dried thoroughly.

Coverage: 5 – 10m²./litre

Drying Time: 3 – 24 hours

Shelf Life: One year

Storage: Store in cool, dry place. Protect from freezing.

Packaging: Now available in two sizes:
2 kg kit = 2 x 1 kg containers
(Part A and Part B)
8kg kit = 2 x 4 kg containers
(Part A and Part B)

Non-toxic, Non-explosive, Non-flammable

Refer to Material Safety Data Sheets for ARDEX 82 ULTRA PRIME.

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 22nd May 2003.

IMPORTANT

This Technical Bulletin provides guideline information only and is not intended to be interpreted as a general specification for the application/installation of the products described. Since each project potentially differs in exposure/condition specific recommendations may vary from the information contained herein. For recommendations for specific applications/installations contact your nearest Ardex Building Products Office.

DISCLAIMER

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ARDEX 51

Primer and Bonding Agents

Floor, Wall and Ceiling

Safe Primer With A Wide Application Range

Primer, Bond Agent And Water-Inhibiting Pore Closer

Prevents Air Bubbles Rising From The Sub-Floor When Finishing

Solvent-Free

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ARDEX 51

Primer And Bonding Agent

USE

Water-inhibiting primer, precoat, bonding agent and pore closer.

Priming cement screeds to take finishing, repairing and levelling compounds.

As a pore closer on concrete and cement screeds

- ✓ It prevents air bubbles rising from the substrate in subsequent finishing layers.
- ✓ It prevents any mixing water being drained in subsequent finishing layers.

Priming gypsum, anhydrite and wooden particleboards for thin bed mortar.

Bonding agent on smooth concrete for gypsum-bound wall finishing compounds.

Protective coat against dust formation on finishing and repairing compounds, which are to serve as wearing surfaces for a short time.

Indoors.

DESCRIPTION

Solvent-free, blue synthetic resin dispersion, which after drying clearly inhibits water penetration.

SUBSTRATE

The substrate must be dry, porous, firm and free from dust and release agents.

APPLICATION

Use clean container.

Use ARDEX 51 bonding and priming dispersion undiluted as a primer and bonding agent on wooden particleboard panels for tile setting.

Dilute 1:2 with water as a pore closer for porous concrete sub-floors and ceilings.

Dilute 1:3 with water as a primer and bonding agent on absorbent substrate.

Apply primer evenly and allow drying to give a clear, thin film before beginning any subsequent work.

MATERIAL REQUIREMENT

Approximately 300g of undiluted ARDEX 51 per m² as a primer and bonding agents on wooden particleboard.

Approximately 100g in concentrated form at 1:2 with water give 300g of diluted ARDEX 51 per m² as a pore closer on porous concrete and cement screed flooring.

Approximately 50g in concentrated form at 1:3 with water gives 200g of diluted ARDEX 51 per m² as a primer and bonding agent and to bind dust.

Substrate pre-treatment for subsequent finishing, repair and levelling work with products from the ARDEX range can be seen in the table below on the application of primers.

NOTE: ARDEX 82 is a synthetic resin primer, which consists of two components and has the effect of a neoprene primer.

Packaging: Plastic container with 5 kg.

Storage: Can be stored for approximately 12 months in originally sealed packaging in a place free from frost.

| SUBSTRATE | PRIMER | DILUTION ARDEX 51: WATER |
|---|---|--------------------------------|
| Smooth and dense substrates such as pre-fabricated concrete floors or particularly compacted cement screeds and wooden particle boards when using finishing and repairing compounds | ARDEX 82 | — |
| Smooth and dense substrates such as improved anhydrite screed flooring, terrazzo, sandstone, tiles and board coverings when using ARDEX K15 smoothing and levelling* compound for other repairing compounds | ARDEX 82 ARDEX 82 | — — |
| Porous concrete and sand/cement sub-floors and ceilings | ARDEX 51 | 1:2 |
| Very porous concrete sand/cement screed, highly sucking, anhydrite screeds and flowing anhydrite screeds, absorbent or ground beneath or between finishing and repairing compounds | ARDEX 51 May require 2nd coat ARDEX 51 | 1:3 1:1 |
| Smooth concrete walls and ceilings for gypsum-bound finishing compounds | ARDEX 51 | 1:3 |
| Gypsum wallboards and gypsum plastering for wall finishing compounds and cement-based thin bed mortar | ARDEX 51 | 1:3 |
| Wooden particle board panels when setting tiles with ARDEX S16 quick-setting building adhesive improved with ARDEX 90 | ARDEX 82 | — |
| Mastic asphalt, badly sanded old mastic asphalt floors, asphalt slab coverings, magnesium oxychloride flooring, synthetic coatings, synthetic flooring, varnishes, coats of paint, metal, wood, varnished, beneath thin bed mortars and repairing compounds | ARDEX 82 | — |

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– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 26th August 2002.



ARDEX 82

ULTRA PRIME

Synthetic Resin Based Primer

Solvent Free

Replacing Any Neoprene Primer

Non-flammable

Non-toxic

Non-Explosive

Dry Internal use

On Smooth and Non-porous Surfaces

Non Porous Concrete, Sealed Concrete, Ceramic Tiles, Mosaic, Terrazzo, Wood & Metal Surface, Plastic Coatings and Paints

ARDEX Australia Pty Ltd
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ARDEX 82 ULTRA PRIME

Synthetic Resin Based Primer

USE

Primer and bonding agent on dense and smooth surfaces, prior to the application of sub-floor levelling compounds.

On wood and wood-based panels, terrazzo, sandstone, glazed and quarry tiles, rigid metal ducting and steel sheets, plastic coatings and paints prior to the application of sub-floor levelling compounds and thin bed mortars.

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to ARDEX Technical Services.

Apply on dry internal surfaces only.

DESCRIPTION

Solvent-free, reactive 2 component synthetic resin based dispersion consisting of:

ULTRA PRIME Part A, light red LIQUID

And

ULTRA PRIME Part B, white LIQUID

Which are mixed together in the ratio 1:1

Non-flammable and not aggressive

Liquid weight: approximately 1 kg/1 litre

pH-value: approx 11

ULTRA PRIME forms a bonding coat by reaction and drying which is effective on all smooth and dense substrates, which are firm, dry and free of wax, oil, dust and other barrier materials.

SITE WORK

ARDEX 82 Synthetic Resin Primer provides a good bonding agent on all smooth and dense surfaces, which however, must be firm, dry and free from wax, oil, dust, curing compounds and other release agents.

Mix PARTS A+B thoroughly following the mixing ratio 1:1 by weight or volume until a uniform light red primer is produced. The mix can be applied immediately and is workable for about 60 minutes at temperatures of +20°C.

Apply a thin even coat of ULTRA PRIME using a short nap or sponge roller, leaving a thin coat of primer, no heavier than a thin coat of paint, to a transparent pink film. DO NOT use mops or spray equipment. DO NOT leave any bare spots, brush off puddles, excess primer and accumulations in places such as grout lines. Allow drying to a clear thin film before levelling compounds or thin bed mortars are applied. Drying time of ULTRA PRIME is minimum 3 hours (max 24 hours) depending on the kind of substrate, temperature and ventilation.

Mixing container and tools should be cleaned immediately after work using a brush and water. Remove fresh ULTRA PRIME from skin by washing off with water, as it is difficult to remove once dried. Avoid long time skin contact.

PRECAUTIONS

Contains epoxide resin and Isophorone Diamine. Irritating to eyes and skin. May cause sensitisation by skin contact.

Avoid contact with eyes. Wear suitable gloves and eye/face protection. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. After contact with the skin, wash off immediately with plenty of soap and water, then apply moisturising cream. Keep out of the reach of children.

Packaging: 2 kilo pack = 1 kg part A + 1 kg Part B
8 kilo pack = 4 kg Part A + 4 kg Part B

Storage: Cool and under roof, protect from frost.

Coverage: 1 litre of ULTRA PRIME should cover between 5 and 10m² depending on the texture of the surface (1 litre = 1 kilogram).

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 21st May 2003.



ARDEX MOISTURE BARRIER

Installed at the coverage rate of 1.5m² per litre (properly applied and cured) provides a moisture vapour membrane with a moisture vapour transmission rate of 7.9 g/m²/24 hours and meets the requirements of AS2870 being the standard for Residential Slabs & Footings.

Primed with ARDEX 82 then smoothed with ARDEX K15 provides a smooth, hard flat cement surface for conventional installation of floorcoverings.

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ARDEX Moisture Barrier

Used and recommended by leading floor covering manufacturers and installers. Ideal for providing a moisture barrier over old concrete where moisture exceeds Australian Standards before laying floor coverings or when time does not permit new concrete to dry sufficiently for same.

DESCRIPTION

A two part, chemically cured-water-based epoxy coating for most porous building surfaces.

USES

For curing seepage and dampness problems on interior surfaces of basements, tunnels, lift wells, retaining walls, floors, below grade car parks, etc. Excellent on fresh concrete after it has hardened and is ideal as a damp proof membrane on concrete floor slabs.

FEATURES

- Cured membrane will withstand 250kPa (36 psi) hydrostatic pressure or equivalent to around a 25 metre head of water.
- Can be applied onto damp surface.
- Used in conjunction with ARDEX 82 and ARDEX K15 provides a total system for waterproofing and installation of floor coverings.
- May be tinted with universal paint tinters.
- Non-flammable, odourless and very low toxicity.
- Can be applied to interior surfaces.

COLOUR

Grey semi gloss.

PERFORMANCE DATA

Adhesion - Excellent to correctly prepared surfaces such as brick, concrete block, masonry concrete and fibre cement.

APPLICATION DATA

SURFACE PREPARATION

Thoroughly remove all adhesives, coatings, grease, oil, dirt, dust, paint and laitance of any kind by mechanical means to expose a roughened, clean, sound, solid and open porous matrix of the concrete. Scarifying, diamond grinding/shaving or captive shot blasting (dust free system) would leave the ideal profile.

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to ARDEX Technical Services.

Holes, cracks and friable areas should be prepared (contact ARDEX for suggested preparation procedures) and must be primed with ARDEX Moisture Barrier and then patched with a mortar made with cement, sand and Moisture Barrier mix. (Contact ARDEX for specific mix proportions to suit). Allow the patching material to dry for approximately 3 – 4 hours at 25°C before proceeding with the normal 2 coat system.

Very dry and porous surfaces should be primed with a fine mist water spray (no free surface water) for best application results to eliminate air pinholes.

MIXING

Stir both parts separately to overcome the possibility of transport settlement; ensuring the stirrer is cleaned before using for the second part. Pour **equal** amounts of Part A and Part B into a **clean** container and mix for at least 3 minutes with a power drill fitted with a suitable stirrer (ARDEX Mixing Paddle). Do not mix more than can be applied in 2 hours at 25°C. Do not use if temperature is below 10°C or above 35°C or above 84% humidity.

APPLICATION

Apply by medium or long nap roller a total of two coats of ARDEX Moisture Barrier Grey at 1.5m² per litre. First coat to be applied at 2.5m² per litre (0.40 litres/m²) and second coat at 3.7m² per litre (0.27 litres/m²). Care must be taken to apply coats in different directions to ensure that there are no windows left in the second coat and absolutely no pinholes in either coat. (Distribution of material may be easier by rubber squeegee before rolling).

Depending on the ambient temperature, it is important that a minimum of three hours have elapsed between coats.

Care should be taken to ensure that both Part A and Part B are mixed individually first before thoroughly mixing together. Although full cure is seven days at 25°C 50% RH the next procedure can take place once the surface is scratch hard (approximately 12 – 24 hours). This will not inhibit the curing process and once cured will withstand 250kPa hydrostatic pressure (25 metres head of water).

INSTALLATION OF FLOOR COVERINGS

Allow the ARDEX Moisture Barrier to dry and harden until scratch hardness (approximately 12 – 24 hours 20°C 50% RH). Prime with ARDEX 82 two-part primer as per product technical data sheet.

Install a minimum of 3 - 4 mm of ARDEX K15 mixed with ARDEX 25 as follows:

Vinyl Tile or Sheet, Carpet and Ceramics:
1 litre ARDEX 25 plus
4.5 litres water per 20 kg ARDEX K15

Parquet and Rubber Flooring:

1.6 litres ARDEX 25 plus
4.0 litres water per 20kg ARDEX K15

The ARDEX K15 cement topping provides protection for the ARDEX Moisture Barrier against damage by vehicular and pedestrian traffic, and a smooth flat hard porous surface for the conventional installation of floorcoverings.

HEALTHCARE APPLICATIONS - INCONTINENCE SEALER

Concrete sub-floors that require protection against incontinence spillages, blood, and urine can be effectively coated with ARDEX Moisture Barrier. Allow 7 days curing for full chemical resistance.

CLEANING

Wash all equipment with warm water/detergent solution before product cures.

TECHNICAL DATA

| | |
|-----------------------|--|
| Colour: | Off white or grey |
| Finish: | Semi-gloss going to mat with aging |
| Volume solids: | 43% +2% |
| Mixing ratio: | 1:1 (Part A:/Part B) by volume |
| Recoat time: | 2 hours @ 25°C & 50% R.H. |
| Full cure: | 7 days @ 25°C & 50% R.H. |
| Pot life: | 2 hours @ 25°C, 1 hour @ 35°C |
| Permeance: | 3.2 x 10 ⁻⁸ g/Pa s m ² |
| W.V.T: | 7.9 gms/24 hrs/square metre @ 32°C @ 100% Vapour Pressure |

Bond Strength To Concrete:

3 Mpa (failure is cohesive with
30 Mpa concrete)

Dry Film Thickness:

300µm theoretical dry film thickness is achieved when the product is achieved at 1.5 square metres per litre. The apparent dry film thickness will reduce depending on the porosity of the substrate, however the product absorbed to the substrate forms part of the waterproofing function.

Coverage:

First Coat 2.5m²/ltr (0.40ltr/m²)
Second Coat 3.7m²/ltr (0.20ltr/m²)
20 litres mixed will cover 30m²
2 coats complete

Must be applied at a rate of 1.5 square metres per litre to achieve an effective waterproofing membrane. Minimum two coats are recommended to achieve uniform covers.

SHELF LIFE

Products should be stored in an even temperature and not below 10°C. The unmixed components have a shelf life of 12 months in the original unopened containers. All packs should be used by the date shown thereon.

BUILDING STANDARDS

ARDEX Moisture Barrier installed at the coverage rate of 1.5m² per litre (properly applied and cured) provides a moisture vapour membrane with a moisture vapour transmission rate of 7.9g/m²/24 hours and meets the requirements of AS2870 being the standard for Residential Slabs & Footings.

All floor covering have a W.V.T. rate and to prevent water vapour condensation between ARDEX Moisture Barrier and the floor covering ensure that the covering has a higher value than 10g/m²/24 hours. The water vapours will then pass through uncondensed and the underside will remain dry.

When such a covering cannot be used or doubt exists contact ARDEX Technical Services for specific instructions

SAFETY DATA

ARDEX Moisture Barrier is classified as non-toxic, non-flammable and non-explosive. Avoid contact with skin and eyes and avoid breathing vapour or spray mist. Wear eye protection and protective gloves when mixing and using.

FIRST AID

If poisoning occurs, contact a Doctor or the Poisons Information Centre. If swallowed, do NOT induce vomiting. Give a glass of water. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

If in eyes, hold eyes open, flood with water for at least 15 minutes and see a Doctor.

ARDEX Moisture Barrier

**ADDITIONAL INFORMATION IS LISTED IN
THE MATERIAL SAFETY DATA SHEETS.**

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 22nd May 2003.



ARDEX GREEN SLAB SEAL (GSS)

Moisture Suppressant System

Suppresses construction moisture in hardened green concrete slabs – Minimum 28 days

Allows vinyl tile & sheet and carpet to be installed onto new concrete

Concrete slabs with hydrostatic and capillary moisture problems – Refer to ARDEX Moisture Barrier

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ARDEX Green Slab Seal

Moisture Suppressant System

DESCRIPTION

ARDEX Green Slab Seal (GSS) consists of GSS Primer being a 1 part solvent free acrylic emulsion, followed by an application of GSS topcoat. GSS topcoat consists of two components, one being a latex based liquid, and the other being a reactive cement based powder. The two components are mixed together to provide a smooth fluid consistency that can be easily applied with a short nap roller. The cured GSS provides a moisture vapour suppressant coating.

USE

ARDEX GSS is used as a moisture vapour suppressant system for internal freshly laid, hardened (green) concrete slabs prior to the installation of vinyl tile, sheet vinyl, carpet and floating timber floors. For the installation of other types of flooring such as rubber and parquet, GSS is not recommended instead use ARDEX Moisture Barrier or consult ARDEX Technical Services.

NOTE: ARDEX Green Slab Seal is only to be used over "above grade" slabs that have an effective damp proof membrane. For rising damp, capillary moisture and hydrostatic pressure the ARDEX MOISTURE BARRIER system should only be used.

It is recommended that concrete has been covered or protected from weather for 28 days and cured for a minimum of 28 days. **Maximum moisture content must not exceed 85% RH or 7% moisture content (test method AS1884-1985) and must be decreasing.**

PREPARATION

Concrete floors must be structurally sound, dry, solid, clean and free of plaster residue, oil, grease, wax, latex compounds, builders chalk, curing compounds, bond breakers, dust and foreign matter back to an open porous matrix of the concrete.

Non-porous concrete surfaces, such as highly burnished concrete, or dense concrete >35MPa must be roughened to provide an open porous matrix, suggested preparation methods would be shotblasting, scarifying or diamond grinding/shaving, or consult with ARDEX Technical Services.

Acid etching is not an acceptable means of cleaning concrete.

MOISTURE TESTS: Should be conducted in accordance with AS 1884-1985 (TEST METHOD) the location and results of tests to be suitably documented.

NOTE: ARDEX GSS systems are designed for green concrete only with a maximum 85% R.H or 7% moisture content, and must be decreasing.

PRIMING

Mix ARDEX GSS Primer Liquid thoroughly before use.

ARDEX Green Slab Seal Primer (do not dilute), to be used for priming porous concrete surfaces as follows:-

GSS Primer must be applied prior to the laying of the two coats of GSS Topcoat. Apply V.G.S.S Primer coat at 6-8m² per litre using a soft broom. DO NOT use paint rollers, mops or spray equipment. DO NOT leave any bare spots. Brush off any puddles. Allow to dry to a clear, thin film minimum 1-2 hours maximum 24 hours. DO NOT apply GSS Topcoat until GSS Primer has dried thoroughly.

MIXING

Mix ARDEX GSS Liquid thoroughly before use.

GSS Topcoat: A fluid workable consistency for roller application can be produced by mixing sufficient quantities of the two components in the ratio of:

| | | |
|------------------------|---|---------------------------|
| 5 kg of VGSS liquid | – | Part "A" plus |
| 5 kg of VGSS powder | – | Part "B" |
| or | | |
| 5 parts of VGSS liquid | – | "Part A" (by volume) plus |
| 4 parts of VGSS powder | – | "Part B" (By volume) |

Mix with an ARDEX Mixing paddle (650 rpm) for 3 – 4 minutes until a lump free fluid consistency is obtained.

Pot Life: 2 hours @ 20°C.

This time will be shortened at high temperatures and extended at low temperatures. Discard material after 2 hours.

APPLICATION

Only mix as much GSS as may be used within 1 – 2 hours.

GSS topcoat is applied using a short nap roller to achieve the required coverage. Press the VGSS topcoat into the primed concrete surface to ensure thorough wetting out, filling all voids and avoid pin holing. Two coats are required (@200 µm wet film thickness per coat) to ensure a uniform coat is obtained with no pinholes.

Coverage: 1st coat @ 3.8m² per kg.
2nd coat @ 3.8m² per kg.
Combined 2 coats = 1.9m² per kg.
A 10 kg Kit of GSS Topcoat will cover approximately 18-20m² (combined 2 coats @ 1.9m² per kg) = 200µm dry film thickness for 2 coats.

Re-Coat time: 2 – 4 hours when dry @ 20°C 50% R.H.

Drying time before levelling: 24 – 48 hours @ 20°C 50% R.H.

Drying time before laying vinyl & carpet: 48 hours @ 20°C 50% R.H.

DO NOT apply GSS at temperatures below 10°C or above 30°C. The drying time of GSS will be shortened at high temperatures or lengthened at low temperatures or high humidity.

FIXING VINYL TILES/SHEET OR CARPET

Depending on the type of flooring to be installed a cement underlayment may be necessary to provide a smooth porous surface for the use of conventional adhesives.

LEVELLING SYSTEMS

ARDEX Feather Finish can be applied directly to GSS – a 2-coat system is recommended.

PRIMING is required to install ARDEX K15.

Prime with ARDEX 82, then install ARDEX K15 with minimum 1.5mm thickness mixed with 1 litre ARDEX 25 to 4.5 litres of water per 20 kg ARDEX K15.

ARDITEX to be applied to a minimum thickness of 1.5mm – NO PRIMING is required.

ADHESIVES

When installing over a non porous surface such as ARDEX Green Slab Seal, always refer to the adhesive supplier for their recommended installation procedure.

PACKAGING

GSS liquid is packed in polyethylene containers – net weight 5kg. Protect from frost and direct sunlight.

GSS powder is packed in paper bags - incorporating a polyethylene liner – net weight 5 kg store in dry conditions.

STORAGE LIFE

GSS has a storage life of up to 6 months stored at 25°C, 50±5 % R.H. in unopened containers. Store on pallets in dry internal areas out of direct sunlight. Avoid excessive heat conditions. DO NOT allow to freeze.

SAFETY PRECAUTIONS

GSS is considered non-hazardous in normal usage. The presence of cement in the GSS powder produces an alkaline mortar, which may cause some local irritation if prolonged contact with the skin takes place. Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes. GSS liquid or mixed GSS. Topcoat should be washed off the skin before drying takes place.

CLEAN UP

Wash all equipment with warm water/detergent solution before product cures.

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Date 7th March 2003.



ARDEX K15

Self-Levelling* & Self-Smoothing Cement

With RAPID-DRY Effect

Feather Edge to Any Thickness in One Operation

Most Technically Advanced Floor Underlayment Available Today

Designed For Fast Levelling Of Floors

Pumpable

Makes Surfaces Ready to Receive Floor Coverings in
One Single Operation

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ARDEX K15

Self-Levelling* & Self-Smoothing

ARDEX K15 is the most advanced floor underlayment available today. Designed specifically for fast levelling of floors. ARDEX K15 provides a durable, flat and smooth floor surface with minimum labour and installation time. ARDEX K15 is recommended and specified by many quality flooring manufacturers, architects and contractors.

RANGE OF APPLICATION

ARDEX K15 will level and smooth concrete and other sub-floors prior to the installation of resilient flooring, ceramic tile, carpeting, wooden parquet, athletic floors etc. ARDEX K15 can be applied at any thickness in a single operation, for indoor installation, for internal use only above and below grade. Before proceeding please refer to Technical bulletins below.

New Construction

- Unlevel concrete
- Rough concrete
- Rain damaged
- General patching
- Unfinished concrete
- Camber problems
- Rough-screeded concrete
- Ramping off skirting boards

Refurbishment Projects over

- Damp Floors use ARDEX Moisture Barrier System
- Terrazzo
- Quarry and ceramic tile
- Old concrete
- Steel decking
- Old wooden floors
- General Patching

PRODUCT DESCRIPTION

ARDEX K15 is a special cement blend. When mixed with water, it becomes a liquid compound which when spread above 2-3mm produces a smooth flat surface.

ARDEX K15 hardens quickly and achieves high early strength. It will not shrink or spall, even when applied in thick layers. Floor coverings can be installed 16 to 18 hours later @ 20°C.

"Simple to install"...high quality... most economical method.

ADVANTAGES

- Excellent smooth flat finish
- Fast track system up to 400m²/hour
- No trowelling required
- Low in-place cost

- Installs eight times faster than previous conventional methods
- No sanding or grinding
- No Spalling
- Mixed with water only
- Tension free
- One application to any thickness
- Can be featheredged
- Not a gypsum product
- Properties similar to regular concrete
- Walkable after 2 to 4 hours
- Compatible with most adhesives
- Pumpable
- Easy to apply and finish from a standing position

Contact ARDEX Technical Services for a Bulletin on these Procedures ARDEX K15:

| | |
|----------------------------------|---|
| Over Timber Flooring | For Parquetry Flooring |
| Over Heated Sub-Floor | Over ARDEX Moisture Barrier |
| Over Ceramic Tile & Terrazzo | To Carry Heavy Loads Over Steel Decking |
| Over Aluminium Decking | Rough Screed Flooring |
| Hot Weather Precautions | Over Hardiflex Decking |
| Cold Weather Precautions | Over Existing Epoxy Flooring |
| Dead Level Floors | Ramps To Floor Waste |
| For "Static Control" Sheet Vinyl | High Stress Areas & Castor Wheels |
| Over ESWA Heating Cable | Over Compressed Fibro |

HOW TO INSTALL ARDEX K15

Sub-Floor Preparation

Concrete floors must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor to provide a roughened, clean, sound, solid and open porous matrix of the concrete, by using recommended preparation methods such as shot-blasting, scarifying, diamond grinding/shaving or other suitable method.

Acid etching is **not** an acceptable means of cleaning the sub-floor. Do **not** use solvents or sweeping compounds to clean the sub-floor. Sub-Floors must be dry (A.S. 1884 1985) and properly primed for a successful installation. Sub-Floor temperatures must be a minimum of 10°C and increasing for the installation of ARDEX products. For further information please refer to the ARDEX Substrate Preparation Brochure.

Power-trowelled (burnished) concrete and Hi-strength concrete greater than 35 MPa, refer to ARDEX sub-floor preparation brochure or contact ARDEX Technical Services.

Non-porous floors, such as terrazzo, ceramic and quarry tiles, and epoxy coatings; must be solid, well bonded and properly cleaned and primed with ARDEX 82 Ultra Prime. Steel decking should be rigid and treated with an anti-corrosive two part epoxy zinc phosphate primer before priming with ARDEX 82 Ultra Prime (refer to Technical Bulletins for specific instructions).

For gypsum, asphalt and lightweight concrete contact ARDEX Technical Services for installation procedures

NOTE: This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure nor in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor covering. This product is not a vapour barrier and will allow free passage of moisture. Follow the directive of the floor-covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing ARDEX K15

NOTE: Refer to A.S. 1884-1985 Section 2.1.1.2 for allowable moisture content (max. moisture content 5.5% or 70% humidity) for sub-floors with high moisture content refer to ARDEX Moisture Barrier and ARDEX Green Slab Seal Technical Bulletins.

Test Area: Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its intended use. As floor coverings vary, always contact and rely upon the floor-covering manufacturer for specific directives, such as maximum allowable moisture content, adhesives selection and intended end use of the product.

PRIMING

Type of sub-floors

- Standard Concrete Floor
- Absorbent Floors

ARDEX 51/ARDEX 510 PRIMERS

Use ARDEX 51 or ARDEX 510 over standard absorbent concrete floors prior to the installation of ARDEX levelling and topping compounds.

Sub-Floors must be free of all curing compounds, bond breakers, waxes, oil, grease or any foreign contaminant before priming.

Standard absorbent concrete:

Mix 1 part ARDEX 51 with 2 parts water or use ARDEX 510 direct from the container (do not add water to ARDEX 510) and apply evenly. Do not use paint rollers, mops or spray equipment. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a clear, thin film (min 3 hours, max 24 hours).

Very absorbent concrete may require two application of primer to avoid bubbles and pinholes in the levelling compound. In such cases, make an initial application of 1 part ARDEX 51 diluted with 3 parts water. Let dry thoroughly and install a second application of 1 part ARDEX 51 diluted with 1 part water.

Allow to dry to a thin clear film (min. 3 hrs. max 24 hours).

NOTE: Low sub-floor temperatures and/or high ambient humidity require longer drying time for ARDEX Primers. Do not install ARDEX K15 before primer has dried thoroughly.

Non-absorbent sub-floors

- Ceramic & Quarry Tile
- Terrazzo etc.,

ARDEX 82 ULTRA PRIME

High strength primer to improve the adhesion of ARDEX K15 to smooth, non-absorbent sub-floors such as **ceramic and quarry tile, terrazzo and marble**. Use ARDEX 82 also to prime **wooden sub-floors***, including **plywood***, **tongue and groove stripwood and steel decking* etc.**, *(Refer to Special Bulletins). **Non flammable, non-toxic, nonexplosive.**

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to ARDEX Technical Services.

Prime with ARDEX 82 Ultra Prime, Mix Part A (red) with Part B (white) and apply with a short-nap or sponge paint roller, leaving a thin coat of primer no heavier than a thin coat of paint, to a thin pink transparent film. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a thin, slightly tacky film (min 3 hours, max 24 hours).

Caution: ARDEX 82 must be applied in a thin layer within one hour of mixing. A thick coat will produce a soft and rubbery surface, which can result in cracking of the ARDEX K15 Underlayment.

MIXING

ARDEX floor levelling products react and harden very quickly when mixed with water. Thorough mixing in the shortest time is essential to ensure the powder and water is evenly dispersed throughout the mix to obtain a lump-free mortar. (Mix the powder into the water) **Concrete mixers and hand mixing are not suitable methods.**

The most efficient method of mixing is by using a ARDEX mixing paddle, connected to a 12MM heavy-duty electric drill (650 rpm). Normal mixing time of a 20kg bag using an electric drill or paddle is 1 to 2 minutes.

TOOLS

ARDEX Water Gauging Bucket; ARDEX Mixing Paddle; ARDEX 18" to 24" hand trowel; ARDEX T-4 Spreader, ARDEX T-5 Smoother, 12mm Heavy Duty Drill (min 650 rpm).

ARDEX K15

Self-Levelling* & Self-Smoothing

MANUAL INSTALLATION

Mix 1 bag of ARDEX K15 (20kg) with 4.5 - 5.0 litres of water.

Put the full measure of drinkable water in the clean mixing drum first, and then add half the 20kg bag in first while mixing thoroughly with the ARDEX Mixing Paddle and electric drill (½" heavy duty - 650 rpm). Then slowly add the remainder of material while still mixing with the drill and paddle. **DO NOT OVERWATER:** A yellowish skim while mixing indicates over-watering. Total mixing time is approximately 2 to 3 minutes to obtain a lump-free mixture.

Pour the liquid ARDEX K15 and spread in place with ARDEX T-4 Spreader or ARDEX Hand Trowel. Sufficient material should be used to adequately cover all high points (min 2 - 3mm) ARDEX K15 smooths itself during the first 10 minutes. Do not rework the ARDEX K15 after 10 minutes working time. For re-coating - refer "Thickness of Installation" Use the ARDEX T-5 Smoother for smoothing, featheredging and touch-up.

For larger installations, mix 2 bag batches at a time (mix time approx. 2 minutes) Also using 2 mixing containers alternately will more than double mix production.

Wear football boots with nylon or rubber studs to avoid leaving marks in the liquid ARDEX K15.

ARDEX K15 surfaces can be walked on 2 to 4 hours after installation and covered with flooring materials the next day, regardless of thickness (depending on ambient temperatures).

PUMPING INSTALLATION

For ease and efficiency of application, ARDEX K15 can be pumped using the ARDEX Levelcraft Automatic Mixing Pump. Follow the instructions in the ARDEX Levelcraft Manual.

"Contact ARDEX Technical Services for detailed pumping information".

THICKNESS OF INSTALLATION

On dense sub-floors such as ceramic, terrazzo, smooth dense concrete etc., ARDEX K15 mortar layer of 1.5mm layer thickness is required.

ARDEX K15 can be installed from featheredge to any thickness in one operation. However, for economics, for large areas with a thickness over 10mm we recommend to mix ARDEX K15 with a well-washed and dried graded fine gravel 4mm-8mm with no fines.

Mix ARDEX K15 with water first, and then add the aggregate while still mixing.

Mixing Ratio

| Filler Type | Grading | Mixed Mortar | Filler |
|-------------|---------|--------------|----------|
| Aggregate | 4/8mm | 1 volume | 1 volume |

Contact ARDEX for supply details on ARDEX pre-packaged aggregate.

The addition of aggregate will diminish the workability of the product and may make it necessary to install an additional layer of neat ARDEX K15.

INSTALLATION OF ADDITIONAL LAYERS OF ARDEX K15

Allow the first layer to dry 12-16 hours at 20°C. Prime the surface with 1 part ARDEX 51 mixed with 2 parts water, following priming instructions. Allow the primer to dry thoroughly (min 3 hours, max. 24 hours) then install an additional layer of neat ARDEX K15.

NOTE: ARDEX K15 is a cement-based material. Observe that you are installing a very thin cementitious topping which will instantly adopt the temperature of the sub-floor. Do not install below 10°C surface temperature. Never mix with cement or additives. **DO NOT OVERWATER.**

HIGH STRESS AREAS

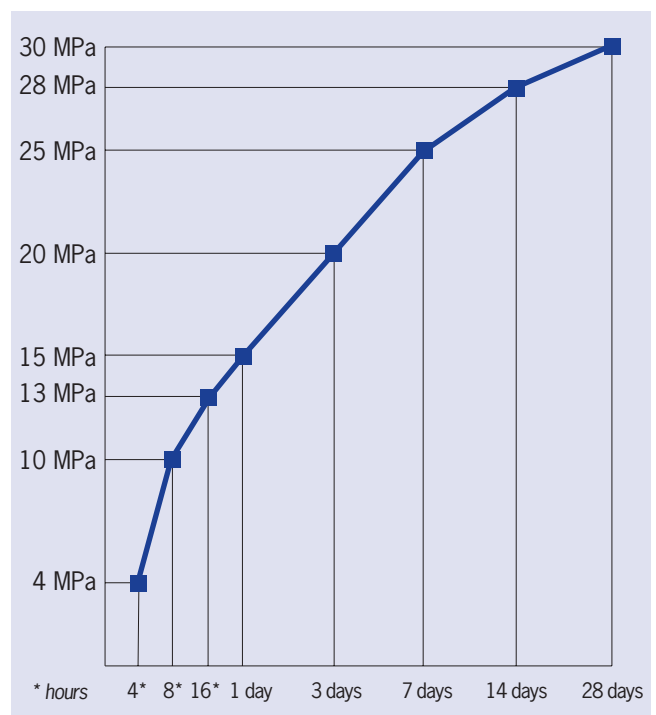
When installing ARDEX K15 over **timber, steel decking, heated sub-floors, hardiflex, sub-floors subject to vibration or required to carry heavy loads or where parquetry floors are to be installed over ARDEX K15** always add ARDEX 25 Resilient Emulsion to increase the resiliency and cohesive strength of K15.

Mix: 1.6 litres ARDEX 25 with 4 litres of water per 20kg bag of ARDEX K15.

Wear Surfaces: To level and resurface concrete floors in warehouses, storage areas, indoor parking garages, hallways or other areas where a wear surface is required. **Contact ARDEX for specific product information.**

Flooring Adhesives: All flooring adhesives, which are compatible with concrete, are compatible with ARDEX K15.

ARDEX K15 COMPRESSIVE STRENGTH



TECHNICAL DATA

According to ARDEX quality standards – under permanent supervision of ARDEX quality assurance.

Coverage: 1.5 kg powder/per mm/per m²
A 20 kg bag covers approximately
12.00m² at 1mm thickness
4.00 m² at 3mm etc.

Mixing Ratio, part by volume: 1 vol. Of water: 3.5 vol of powder equivalent to 4.5 – 5.0 litres of water: 20 kg powder.

Bulk density: approx 1.2 kg/litre

Flowing Time: 10 minutes

Fresh mortar

weight: approx 1.9kg/litre

Walkability: approx 2 hours after application

Ready to

receive floor

coverings: 16-18 hours after application @ 20°

Compressive Strength:

After 1 day approx 15N/mm²

After 3 days approx 20 N/mm²

After 7 days approx 25 N/mm²

After 28 days approx 30 N/mm²

Tensile Bending Strength:

After 1 day approx 5 N/mm²

After 3 days approx 6 N/mm²

After 7 days approx 7 N/mm²

After 28 days approx 10 N/mm²

Ball Pressure Hardness:

After 1 days approx 40 N/mm²

After 3 days approx 50 N/mm²

After 7 days approx 55 N/mm²

After 28 days approx 60 N/mm²

Flammability:

ASTM E-84-81a

Flame Spread 0

Fuel Contribution 0

Smoke Development 0

Packaging: 20 kg bags

Storage: Store in a cool, dry area. Do not expose bags to sun.

Shelf Life: 12 months in unopened bags

ARDEX K15 also conforms to:

British Standard Code of Practice CP203
Part 2, 1972 and

American Standards of Testing Methods
ASTM C 349 Modified – compressive strength
ASTM C 348 Modified – flexural strength
ASTM E10 Modified – Ball pressure hardness, Brinell
ASTM C 191 – initial and final set

- **Safety:** K15 contains Portland cement and Silica sand – Avoid generation of dust-Do not inhale dust-Avoid contact with eyes or skin-Wear suitable protective gloves and safety glasses.

- **First Aid:** Contact with eyes-Rinse opened eye for several minutes under running water. Contact with skin – Wash affected areas thoroughly with running water. If dust is inhaled-Remove to fresh air, ensure breathing passages are clear, rinse mouth with running water. IF SYMPTOMS PERSIST SEEK MEDICAL ADVICE IMMEDIATELY.

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.

– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

*Self-Levelling is a generic, internationally used term to describe the flowing properties of these cements – in that trowel marks will flatten out based on a minimum thickness of material applied – ARDEX K15 2 – 3mm.

Date 5th March 2003.



ARDEX K10

Synthetic Resin Improved Levelling, Smoothing & Repairing Compound

Ideal For Ramping

Featheredge To 35mm

Resistant To Castor Wheels

Suitable For Heavy Traffic

Can Be Used As A Wear Surface

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Internet: www.ardex.com

ARDEX K10

Synthetic Resin Improved Levelling, Smoothing & Repairing Compound

DESCRIPTION

ARDEX K10 is a dark grey powder consisting of high synthetic resins and special cements as binders. When mixed with water, a dark grey, easy flowing mortar is produced, which sets within 1½ hours and hardens by hydration and drying at normal temperatures to a water resistant and virtually tension free mass. The mortar bonds strongly to most construction materials used in floor screeds i.e. sand/cement, concrete etc. The substrate must be primed for a successful installation. (see primer leaflet). When cured, the ARDEX K10 screed attains a high hardness and comprehensive strength as well as retaining a high degree of resilience and is therefore suitable for sub-floors where castor wheels are used where extreme hardness is required and as an underlayment for wear-resistant coatings. ARDEX K10 screeds have good abrasion resistance and are therefore suitable for use where the sub-floor has to be unavoidably left open for some time prior to the application of the floor covering. ARDEX K10 can be applied from a featheredge up to 35mm in a single application, as there is no significant shrinkage on drying i.e. the material is virtually tension-free.

USE

For levelling and adjusting tolerances between concrete slabs etc. For smoothing and repairing sand/cement and concrete sub-floors, stair treads etc., featheredge to 35mm prior to the application of floorcoverings, surface coatings etc. For internal use only.

HOW TO INSTALL ARDEX K10 SUB-FLOOR PREPARATION

Concrete floors must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor to provide a roughened, clean, sound, solid and open porous matrix of the concrete, by using recommended preparation methods such as shot-blasting, scarifying, diamond grinding/shaving or other suitable method.

Acid etching is **not** an acceptable means of cleaning the sub-floor. Do **not** use solvents or sweeping compounds to clean the sub-floor. Sub-Floors must be dry (A.S. 1884 1985) and properly primed for a successful installation. Sub-Floor temperatures must be a minimum of 10°C and increasing for the installation of ARDEX products. For further information please refer to the ARDEX Substrate Preparation Brochure.

Power-trowelled (burnished) concrete and Hi-strength concrete greater than 35 MPa, refer to ARDEX sub-floor preparation brochure or contact ARDEX Technical Services.

Non-porous floors, such as terrazzo, ceramic and quarry tiles, and epoxy coatings; must be solid, well bonded and properly cleaned and primed with ARDEX 82 Ultra Prime. Steel decking should be rigid and treated with an anti-

corrosive two part epoxy zinc phosphate primer before priming with ARDEX 82 Ultra Prime (refer to Technical Bulletins for specific instructions).

For gypsum, asphalt and lightweight concrete contact ARDEX Technical Services for installation procedures.

NOTE: This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure nor in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor covering. This product is not a vapour barrier and will allow free passage of moisture. Follow the directive of the floor-covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing ARDEX K10.

NOTE: Refer to A.S. 1884-1985 Section 2.1.1.2 for allowable moisture content (max. moisture content 5.5% or 70% humidity) for sub-floors with high moisture content refer to ARDEX Moisture Barrier and ARDEX Green Slab Seal Technical Bulletins.

Test Area: Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its intended use. As floor coverings vary, always contact and rely upon the floor-covering manufacturer for specific directives, such as maximum allowable moisture content, adhesives selection and intended end use of the product.

PRIMING

Standard Absorbent Concrete: Prime with ARDEX 51 with water as per instructions on Primer container. Apply evenly with a soft pushbroom and allow to dry to a clear, thin film (min 3 hours; max 24 hrs) Do not apply underlayment before primer has dried thoroughly. Primer can also be applied the day before. Do not use paint rollers, mops or spray equipment.

Non-Absorbent substrates, Ceramic Tile and Terrazzo should be properly cleaned and if required professionally stripped. After drying prime with ARDEX 82 ULTRA PRIME. Apply with a short-nap or sponge paint roller, leaving a thin coat of primer no heavier than a thin coat of paint, to a thin pink transparent film. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a thin, slightly tacky film (min 3 hours, max 24 hours).

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to ARDEX Technical Services.

Wooden Floors: Use ARDEX K15 Self Levelling Underlayment Concrete as described in our Technical Bulletin "Installation of ARDEX K15 Over Wooden Floors" or ARDITEX Latex self smoothing underlayment.

Latex Compounds, asphalt, gypsum and other generally weak sub-floor will not perform as an adequate sub-floor and must be removed.

ARDEX K10

Synthetic Resin Improved Levelling, Smoothing & Repairing Compound

MANUAL INSTALLATION

Mix 1 x 20 kg bag of ARDEX K10 with 4.5 litres of water. Put the full measure of water in the drum first, then add half the 20kg bag in first while mixing thoroughly with the ARDEX mixing paddle and electric drill (heavy duty - 650 rpm). Then slowly add the remainder of the materials while still mixing with the drill and paddle. **DO NOT OVERWATER:** a yellowish skim while mixing indicates overwatering. Total mixing time is approximately 2 – 3 minutes to obtain a lump free mixture.

APPLICATION

Pour the mixed material onto the floor; grind in with a steel trowel and spread the ARDEX K10 mortar evenly over the surface to the required thickness, for thicknesses over 10mm, It is preferable as well as economical to incorporate in the mortar an equal volume of 3mm to 8mm to dry aggregate. The addition of aggregate will diminish the workability of the product and may make it necessary to install a finish layer. Allow the first layer to dry 12 – 16 hours at 20°C. Prime the surface with ARDEX 51 mixed 1:2 with water, following priming instructions. Allow the primer to dry thoroughly (min 3 hours, max. 24 hours) and install the finish layer. Apply only at sub-floor temperatures above 10 °C.

NOTE: ARDEX K10 is a cement-based material. Observe the basic rules of concrete work. Do not install below 10°C surface temperature. Install quickly if substrate is warm and follow hot weather precautions. Never mix with cement or additives. **DO NOT OVERWATER.**

To extend the pot life in summer, store ARDEX K10 in a shady and cool place. For mixing use cool water only. If necessary cool the water with a block of ice (not party ice). On days with high temperatures the mortar will set and harden fast.

DRYING-HARDENING

ARDEX K10 sets by hydration within 1½ hours at 20°C., and can be walked on after this time. Thin layers are usually ready to receive floorcoverings in 4 to 6 hours.

HIGH STRESS AREAS

The use of ARDEX K10 mixed with ARDEX 25 as follows:

1.5 litres of ARDEX 25 plus
3.5 litres of water per
20 kg ARDEX K10

For use where the ARDEX K10 is to be left as a wear surface, for short periods when laying over underfloor heating, heavy traffic or high point loading such as pallet jacks and castor wheels or as an underlayment for parquet or rubber flooring.

THICKNESS OF INSTALLATION

On dense sub-floors such as ceramic, terrazzo, smooth dense concrete etc., ARDEX K10 minimum mortar layer of 1.5mm layer thickness is required.

COVERAGE

Approximately 1.5 kg ARDEX K10 powder per square metre of a thickness of 1mm i.e. 12m² at 1mm thickness per 20kg bag.

PACKAGING AND STORAGE

Three-ply paper bags with polyethylene liner containing 20kg net ARDEX K10 has a shelf life of approximately 12 months if stored in dry conditions i.e. off concrete floor, bag sealed from direct air, and out of direct sunlight.

TECHNICAL DATA

| | |
|------------------------------|----------------|
| Bulk density of powder | 1.4kg/litre |
| Weight of fresh mortar | 1.8kg/litre |
| Initial set (Vicat) DIN 1164 | approx. ½hr |
| Final set (Vicat) DIN 1164 | approx. 1½ hrs |

Compressive Strength (DIN 1164):

| | |
|---------------|----------|
| After 1 days | 18.6 MPa |
| After 3 days | 22.6 MPa |
| After 28 days | 35.3 MPa |

Tensile Bending Strength (DIN 1164):

| | |
|---------------|----------|
| After 1 days | 4.9 MPa |
| After 3 days | 5.9 MPa |
| After 28 days | 10.3 MPa |

Ball Pressure Hardness (Brinell):

| | |
|---------------|----------|
| After 1 days | 54.4 MPa |
| After 3 days | 66.2 MPa |
| After 7 days | 71.1 MPa |
| After 28 days | 78.0 MPa |

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 5th March 2003.



ARDIT Z8

The Quick Setting Sub-Floor Surfacing And Levelling Compound

“Original Rapid-Hardening Sub-Floor Levelling Compound”

Featheredge to 5mm

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Internet: www.ardex.com

ARDIT Z8

The Quick Setting Sub-Floor Surfacing and Levelling Compound

USE

For smoothing and levelling of internal sub-floors prior to the installation of flooring coverings. ARDIT Z8 mixes with water only, to provide an easy to trowel rapid-hardening screed.

DESCRIPTION

ARDEX Z8 is a grey powder mix of special cements and organic binders, and is the “original rapid-hardening sub-floor levelling compound” which can be laid to a true featheredge. When mixed with water ARDIT Z8 produces an easily flowing mortar with self-levelling* properties, which sets within 2 hours depending on the site conditions and hardens by hydration and drying to produce a smooth hard and water resistant surface. ARDIT Z8 adheres to virtually any kind of sub-floor* which is suitable for the installation of floor coverings. Refer to ARDEX product comparison leaflet.

COVERAGE

12m² at 1mm thickness

4m² at 3mm thickness

HOW TO INSTALL ARDIT Z8 SUB-FLOOR PREPARATION

Concrete floors must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor to provide a roughened, clean, sound, solid and open porous matrix of the concrete, by using recommended preparation methods such as shot-blasting, scarifying, diamond grinding/shaving or other suitable method.

Acid etching is **not** an acceptable means of cleaning the sub-floor. Do **not** use solvents or sweeping compounds to clean the sub-floor. Sub-Floors must be dry (A.S. 1884 1985) and properly primed for a successful installation. Sub-Floor temperatures must be a minimum of 10°C and increasing for the installation of ARDEX products. For further information please refer to the ARDEX Substrate Preparation Brochure.

Power-trowelled (burnished) concrete and Hi-strength concrete greater than 35 MPa, refer to ARDEX sub-floor preparation brochure or contact ARDEX Technical Services.

Non-porous floors, such as terrazzo, ceramic and quarry tiles, must be solid, well bonded and properly cleaned and primed with ARDEX 82 Ultra Prime.

For gypsum, asphalt and lightweight concrete contact ARDEX Technical Services for installation procedures.

NOTE: This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure nor in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor covering. This product is not a vapour barrier and will allow free passage of moisture. Follow the directive of the floor-covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing ARDIT Z8.

NOTE: Refer to A.S. 1884-1985 Section 2.1.1.2 for allowable moisture content (max. moisture content 5.5% or 70% humidity) for sub-floors with high moisture content refer to ARDEX Moisture Barrier and ARDEX Green Slab Seal Technical Bulletins.

Test Area: Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its intended use. As floor coverings vary, always contact and rely upon the floor-covering manufacturer for specific directives, such as maximum allowable moisture content, adhesives selection and intended end use of the product.

PRIMING

Standard Absorbent Concrete: Prime with **ARDEX 51** diluted with water as per instructions on Primer container. Apply evenly with a soft pushbroom and allow to dry to a clear, thin film (minimum 3 hours, maximum 24 hours). Do not apply underlayment before primer has dried thoroughly. Primer can also be applied the day before. Do not use paint rollers mops or spray equipment.

Non-Absorbent surfaces, Ceramic Tile and Terrazzo should be properly cleaned and if required professionally stripped. After drying, prime with ARDEX 82 Ultra Prime. Apply with a short-nap or sponge paint roller, leaving a thin coat of primer no heavier than a thin coat of paint, to a thin pink transparent film. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a thin, slightly tacky film (min 3 hours, max 24 hours).

Non-Porous concrete, sealed, burnished, hi-strength, off-form, and greater than 35MPa refer to ARDEX Technical Services.

***Wooden Floors** vary greatly in quality and should not be covered with ARDIT Z8. Use instead **ARDEX K15 Self Levelling* Underlayment Concrete** as described in our Technical Bulletin “**Installation of ARDEX K15 Over Wooden Floors**” or **ARDITEX Latex smoothing cement**.

Latex compounds, asphalt, gypsum and other generally weak sub-floors will not perform as an adequate sub-floor and must be removed.

MIXING

Mix 1 bag of 20kg ARDIT Z8 with 5 litres of water. Put the full measure of water (5 litres) in the drum first, then add half the 20kg bag in first while mixing thoroughly with the ARDEX mixing paddle and electric drill (heavy duty - 650 rpm). Then slowly add the remainder of the material while still mixing with the drill and paddle. DO NOT OVERWATER! A yellowish skim while mixing indicates overwatering. Total mixing time is approximately 2 - 3 minutes to obtain a lump free mixture. Mixing Ratio for small mixes (parts by volume) approximately 1 volume of water: 3.5 volumes of powder.

INSTALLATION

Pour the mixed mortar onto the prepared sub-floor, pressing it into the surface with a trowel and then spreading it to the required thickness in a single operation. (Maximum thickness without filler 5mm). For applications over 5mm thick incorporate either half volume of suitable coarse sand or an equal volume of 2-3 grade aggregate in the mixed mortar. For thicknesses greater than 10mm incorporate an equal volume of aggregate graded from 3 - 8mm. The addition of aggregate will diminish the workability of the product and may make it necessary to install a finish layer. Allow the first layer to dry 12 - 16 hours at 20°C. Prime the surface with ARDEX 51 mixed 1: 2 with water, following priming instructions. Allow the primer to dry thoroughly (min 3 hours, max 24 hours) and install the finish layer. If more than one layer is laid, the second or third layer should not exceed 50% of the proceeding layer. (Max Thickness 12mm).

Improve ARDIT Z8 mortar with ARDEX 25 when underlayment has to be exposed to high loads.

On dense and non-absorbent sub-floors the ARDIT Z8 mortar application should be 1.5mm as minimum thickness.

For screed and levelling of large areas with layer thickness above 5mm we recommend to use the tension free **ARDEX K15 Self-Levelling* Sub-Floor Smoothing compound**. Applicable at any thickness.

HARDENING TIME AND INSTALLATION OF FLOORING

ARDIT Z8 sets by hydration within 1 hour at 20°C and can be walked on after this time. Thin layers usually ready to receive floorcoverings in about 4 - 6 hours.

NOTE: ARDIT Z8 is a cement-based material. Observe the basic rules of concrete work. Do not install below 10°C surface temperature. Install quickly if substrate is warm and follow hot weather precautions. Never mix with cement or additives. DO NOT OVERWATER.

CONSTRUCTION AND EXPANSION JOINTS: Movement joints must always be continued through the ARDIT Z8 underlayment (Per A.S. 1884-1985 Sec 3.2 (a)) – cracks

in the sub-floor must be repaired to prevent telegraphing through the ARDIT Z8.

MAGNESITE COMPOSITION, ASPHALT AND TIMBER FLOOR. As the composition and condition of these floors vary so much it is advisable first to contact ARDEX Technical Services.

PACKAGING AND STORAGE

Three ply paper bag with H.D. Polyethylene film containing 20kg net ARDIT Z8 has a shelf life of approximately 12 months if stored in dry condition i.e. Off concrete floor, bag sealed from direct air and sunlight.

For further information please consult our ARDEX Technical Service in Sydney, Melbourne, Brisbane, Adelaide, Perth, Auckland & Wellington.

TECHNICAL DATA

| | |
|------------------------|--------------|
| Bulk density of powder | 1.25kg/litre |
| Weight of fresh mortar | 1.75kg/litre |
| Initial set (Vicat) | ½ hour |
| Final set (Vicat) | 1 hour |

Free moisture content of 3mm layer (At 20°C and 65% relative humidity):

| | |
|----------------|--------|
| After 24 hours | 1.4% |
| After 3 days | 1.2% |
| After 7 days | Traces |

Compressive Strength (DIN 1164):

| | |
|---------------|----------|
| After 3 days | 13.2 MPa |
| After 7 days | 16.2 MPa |
| After 28 days | 21.0 MPa |

Tensile Bending Strength (DIN 1164):

| | |
|---------------|---------|
| After 3 days | 3.4 MPa |
| After 7 days | 4.4 MPa |
| After 28 days | 6.3 MPa |

Ball Pressure Hardness (Brinell):

| | |
|---------------|----------|
| After 3 days | 29.4 MPa |
| After 7 days | 32.6 MPa |
| After 28 days | 35.7 MPa |

Point Loading Indentation Depth (Zwick):

| | |
|---------------|---------|
| After 3 days | 0.21mm |
| After 7 days | 0.19 mm |
| After 28 days | 0.18mm |

Acid Resistance – Similar to dense concrete.

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ARDIT Z8

The Quick Setting Sub-Floor Surfacing and Levelling Compound

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 22nd May 2003.



ARDEX A 45

Rapid Hardening & Drying Internal Repair Mortar

Rapid Hardening & Drying – Receives Finishes after 1½ Hours

Slump Free – Ideal for Vertical & Horizontal Repairs

Rapid Repair of Internal Concrete Sub-Floors
and Concrete Stairs

Fills Holes and Cracks in Renders, Screeds, etc.

Rapidry Formula

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ARDEX A 45

Rapid Hardening & Drying Internal Repair Mortar Rapid Dry Formula

WHAT IS THE RAPIDRY FORMULA?

It is the ability of the mortar to totally bind the water used for mixing.

DESCRIPTION

ARDEX A 45 is a rapid setting and drying, slump-free mortar for internal repairs. The mortar dries and hardens rapidly to give a repair of exceptional strength and hardness. The mixed mortar sets after ¼ hour and can be trafficked after 1½ Hours at 20°C.

USE

ARDEX A 45 is ideal for repairing and refacing internal concrete stair treads and risers, cement/sand screed concrete floors etc., – filling and patching cracks etc., in walls ceilings, soffits etc., – making good around door and window frames, round pipework etc., – forming ramps from feather edge to normal screed thicknesses – forming coves etc., prior to applying insitu resin floorings. A suitable covering/coating is required if used as a wearing surface.

PREPARATION

ARDEX A 45 can be applied to dry or moist screeds providing they are set and hardened and the surface is sound and free of dust, grease, oil and other surface contamination. Worn or trafficked surfaces should be abraded (diamond grinder or scarified) to remove contamination and roughen concrete to expose a clean porous surface to ensure good adhesion. Very dense, smooth impervious surfaces should be primed with ARDEX 82 Primer. Priming is not usually necessary on porous surfaces such as concrete, cement/sand, brickwork etc., unless the surface is extremely porous. Direct to earth sub-floors must have an effective damp-proof membrane.

Power-trowelled (burnished) concrete and Hi-strength concrete greater than 35 MPa, refer to ARDEX sub-floor preparation brochure or contact ARDEX Technical Services.

MIXING

The ARDEX A 45 powder is added to the required amount of water in a clean mixing container and mixed thoroughly to obtain a lump-free and slump-resistant mortar. The mix proportions are:

20kg ARDEX A 45 powder to approx.
4.5 litres of water
i.e. approximately 3 parts powder to
1 part water by volume

Avoid using too much water. The mixed mortar has a working time of 10 to 15 minutes at 20°C, this time being extended at lower, and reduced at higher temperatures. For thicknesses over 5mm, but not exceeding 30mm, the ARDEX A 45 mortar can be bulked out with 1/3 volume of

sharp sand (0-5mm grading), or up to an equal volume of 3mm single sized aggregate/chippings. For localised thicknesses exceeding 20mm, e.g. filling deep holes and cracks, incorporate up to an equal volume of 10mm single sized coarse aggregate (BS 882 – table 4) in the ARDEX A 45 mortar.

APPLICATION

Repairs: Apply the mortar with a trowel to holes, cracks and damaged areas, ensuring that the mortar “wets” the surface by trowelling in firmly, leaving the repair proud. After about 15 minutes trim off excess and finish off with a wet trowel, sponge or sponge float to obtain a smooth surface. As soon as the repair has hardened, the surface of the floor, stair tread etc., can be levelled, if necessary with ARDEX sub-floor levelling cement.

Smoothing and Refacing: Apply the mixed mortar with a trowel to the required thickness taking into account the short working time. The material may be finished with a wet trowel after 15 – 20 minutes to provide a finish suitable for direct application of floor coverings. High aggregate content mixes may require a second application of “neat” ARDEX A 45.

Apply at temperatures above 10°C.

Coverage: Approx. 1.6 kg ARDEX A 45 powder/m²/mm. A 20kg bag of ARDEX A 45 will cover approximately 12m² at 1mm thickness.

Packaging: ARDEX A 45 is packed in paper sacks incorporating a polythene liner – net weight 20kg bags and 5kg pail.

Storage: ARDEX A 45 has a storage life of not less than 12 months if stored in dry conditions.

PRECAUTIONS

ARDEX A 45 is considered non-hazardous in normal usage. The presence of cement in the product gives an alkaline mortar, which may cause some local irritation if prolonged contact with the skin takes place. Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes.

TECHNICAL DATA

| | |
|-----------------------------|----------------------------|
| Bulk density of powder | approx. 1.4kg/litre |
| Weight of fresh mortar | approx 1.9kg/litre |
| Initial Set (Vicat) DIN1164 | approx. 15 minutes at 20°C |
| Final Set (Vicat) DIN 1164 | approx. 60 minutes at 20°C |

Compressive Strength (DIN 1164):

| | |
|---------------|-------------------------------|
| After 1 day | 25.0 MPa (N/mm ²) |
| After 3 days | 35.0 MPa (N/mm ²) |
| After 28 days | 40.0 MPa (N/mm ²) |

Tensile Bending Strength (DIN 1164):

| | |
|---------------|-------------------------------|
| After 1 day | 5.0 MPa (N/mm ²) |
| After 3 days | 8.0 MPa (N/mm ²) |
| After 28 days | 10.0 MPa (N/mm ²) |

Ball Pressure Hardness (Brinell):

| | |
|---------------|-------------------------------|
| After 1 day | 40.0 MPa (N/mm ²) |
| After 3 days | 45.0 MPa (N/mm ²) |
| After 28 days | 50.0 MPa (N/mm ²) |

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 8th April 2003.



ARDEX

FEATHER FINISH

Cement-Based Finishing Underlayment

No liquid latex to add, ever!

Portland cement-based, will not stain or mildew!

Never needs priming!

Recommended by floor covering manufacturers

Will allow most floorcovering installation while patch is damp

Economical! Skim coat up to 6m² per kg

No sand or fillers. Get a true featheredge

Exceptional bond to: Concrete, Wood, Terrazzo, Ceramic
and Quarry Tile without priming

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ARDEX FEATHER FINISH

Cement-Based Finishing Underlayment

DESCRIPTION

ARDEX Feather Finish provides a smooth, permanent finish to a variety of substrates prior to the installation of today's demanding floor coverings such as vinyl sheet and tile.

ARDEX Feather Finish allows the installation of most types of floor covering in as little as 15 minutes over concrete, wood, ceramic and quarry tile – all without the need for priming or the use of a latex additive.

ARDEX Feather Finish mixes with water only to a creamy, smooth consistency for easy application. Engineered around a self-drying, Portland cement-based matrix, all of the mix water is chemically combined within the product itself. Using this unique technology, flooring installation problems associated with disbonding, crumbling, mildew and staining are eliminated, thus preserving the floor manufacturer's full product warranty.

RANGE OF APPLICATION

Use ARDEX Feather Finish to smooth ridges, fill in scratches, gouges and joints and to provide a true featheredge transition over concrete, wood, cementitious terrazzo, as well as over ceramic and quarry tiles.

To use ARDEX Feather Finish as embossing filler, the use of ARDEX 82 ULTRA PRIME is required (See Embossing Filler)

Especially suited for use with other ARDEX underlayment products.

SUB-FLOORS PREPARATION

All existing sub-floors must be structurally sound, solid and completely clean to include the removal of waxes, sealers, curing compounds, patching compounds, dust, dirt, oil, or any contaminant which may act as a bond breaker. Where required, substrate preparation must be by mechanical means. Do not use sweeping compounds, solvents or acid etching as a means of surface preparation. Sub-Floors must also be dry and a minimum of 10°C.

Consult the flooring manufacturer for the maximum allowable moisture content of the substrate and the recommended installation temperature.

RECOMMENDED TOOLS: mixing bucket, margin trowel and a steel trowel. For best results use the ARDEX Mixing Paddle and mix mechanically using a 12mm heavy-duty drill.

MIXING

The recommended mixing ratio is two parts by volume of powder to one part water. For an entire bag, mix 2.2 litres of water with the 4.5 kg of powder. The use of additional water will weaken the ARDEX FEATHER FINISH and will cause it to take longer to harden. Place the water in the container first and then add the powder while mixing by hand to a lump-free consistency. Using mechanical mixing will produce a creamier and smoother consistency without the need for additional water.

INSTALLATION

ARDEX FEATHER FINISH is easily applied to any prepared surface using a steel trowel. Apply sufficient pressure to fill all defects and to feather the product into the sub-floor surface. It is not necessary to leave a certain minimum thickness of product on the substrate. Use the least amount possible to attain the desired smoothness.

THICKNESS OF INSTALLATION

ARDEX FEATHER FINISH can be installed from a true featheredge up to 3mm thick over large areas in one application.

POT LIFE

Approximately 15 minutes at 20°C. Note: The pot life will vary with ambient temperature conditions. Mix only the amount of ARDEX FEATHER FINISH that will be used immediately to avoid waste.

FLOORING INSTALLATION

As soon as the ARDEX FEATHER FINISH can be walked on without damaging the surface (in as little as 15 – 20 minutes), standard floor covering such as ceramic tile, vinyl tile and sheet and carpeting can be installed.

COVERAGE

The unique formulation of ARDEX FEATHER FINISH is such that its coverage is easily three times that of a sanded product. A 4.5 kg unit covers up to 3m² @ 3mm. When skimming over concrete coverage is 10 – 15m², and over plywood 20 – 30m² can be achieved.

EMBOSSING FILLER

Existing felt-backed embossed residential sheet vinyl must be clean and free of waxes or other dressings. The flooring must be solidly bonded, have been installed over a suitable substrate, and must not show any signs of moisture or alkaline salts. Do not use as an embossing filler over cushioned-backed flooring which is thicker than 2mm or over flooring, which was installed using a perimeter bonded method.

To use ARDEX FEATHER FINISH as an embossing filler, mix one part by volume of ARDEX 82 Part A to one part by volume of ARDEX 82 Part B and blend to a uniform consistency. Add two parts by volume of ARDEX FEATHER FINISH and mix as above.

For example, mix 1 cup (250ml) of ARDEX 82 Part A with 1 cup (250ml) of ARDEX 82 Part B. Blend this to a uniform colour and consistency and then add 2 cups (500ml) of ARDEX FEATHER FINISH. Mix the embossing filler to a creamy consistency using an ARDEX Mixing Paddle and drill. Apply the filler to the prepared residential sheet vinyl with the flat side of a trowel in the thinnest possible layer

ARDEX FEATHER FINISH

Cement-Based Finishing Underlayment

to fill in the existing pattern. (Coverage of above mix is 5m², depending on the depth of the embossing pattern). After the pattern is filled, should additional filling or smoothing be required, use ARDEX FEATHER FINISH mixed with water only.

The embossing filler blend will typically require 90 minutes of drying time prior to the installation of the new residential sheet vinyl. The surface is ready when a twist of a shoe does not affect the bond of the embossing filler. When dried, the surface of the filled vinyl is considered a non-porous substrate and the adhesive should be selected accordingly, otherwise bubbling of vinyl may occur. Loose lay or contact your adhesives supplier for specific recommendations.

LIMITATIONS

ARDEX FEATHER FINISH is intended for interior underlayment use only. Do not use in areas which will be subjected to standing water.

NOTE: ARDEX FEATHER FINISH is a cement-based material. Observe the basic rules of concrete work. Do not install on substrate of ambient temperature below 10°C or below the minimum temperature recommended by the floor-covering manufacturer. DO NOT OVERWATER.

FLOORING ADHESIVES

When installing a skim coat of FEATHER FINISH over non-porous surfaces such as ceramic tiles, residential vinyl flooring always refer to the adhesive supplier for their recommended installation procedure.

WARNING – AS WITH OTHER CEMENT PRODUCTS

Keep out of the reach of children. This product contains Portland cement. Avoid prolonged contact with the skin. In case of eye contact, flush eyes repeatedly with water and consult nearest doctor.

Packaging: 4.5kg bags (10lbs).

Storage: store in a cool, dry area. Do not expose bags to the heat of the sun as this can accelerate the pot life.

Shelf Life: 6 months.

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 22nd May 2003.



ARDITEX

Latex-based universal sub-floor smoothing compound

Excellent adhesion to almost all substrates

Unaffected by moisture, can be used under a damp proof membrane

Simply mixed, pre-gauged 2 part pack

Excellent flow characteristics

Featheredge to 12mm in one application

Apply to 30mm incorporating a suitable aggregate

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ARDITEX

Latex-based universal sub-floor smoothing compound

DESCRIPTION

Arditex is a partially self-smoothing latex screed with excellent properties of adhesion, flexibility and water resistance. Due to its special formulation, Arditex can be used under a damp proof membrane. It is exceptionally easy to mix and produces very low drag on the trowel. In addition to these advantages, Arditex can be laid from a featheredge up to at least 12mm in a single application.

USE

To level uneven internal sub-floors to provide a smooth surface prior to the application of floor coverings. Arditex can be applied on all common sub-floors such as concrete and cement/sand screeds, flooring grade asphalt, wood (see Preparation below), quarry tiles, internal steel decks, etc.

PREPARATION

The surface of the sub-floor must be clean, sound and free from dust, plaster droppings, grease, paint, polish and any water-softenable or loosely adhered materials. On absorbent surfaces it may be necessary to damp down, or prime the surface using the Arditex latex liquid diluted 1 part to 4 parts water and allow to dry before applying the Arditex mortar. Where rising damp is present it is recommended that a suitable surface damp-proof membrane be applied on top of the hardened Arditex. The adhesion and hardening of Arditex is unaffected by the presence of dampness in the sub-floor providing the floor is free of surface water. If sub-floors are impervious e.g. flooring grade asphalt or have adhesive residues that will be affected by subsequently applied adhesives, an overall application of Arditex at least 3mm thick will be required. This is to ensure uniform drying of the new adhesive or to prevent interaction either with the old adhesive residues or with the asphalt sub-floor. Prior to levelling wooden floors, re-nail and firmly fix all loose boards. Where timber floors are sufficiently rigid but are uneven or worn, or where there is differential movement between floor boards, the technique is to pre-level the timber with Arditex prior to screw or ring nail fixing 6mm to 12mm thick plywood sheets to provide a sound and stable base for the new flooring. For the installation of resilient tile and sheet vinyl flooring, refer to technical bulletin "Arditex Patch Over Timber Floor with Vinyl and Cork Underlay Sheeting". In all cases sub-floor ventilation must be adequate to prevent deterioration and moisture movement.

MIXING

Mix one 20 kg bag of Arditex powder into 4.4 kg of Arditex latex. The latex should be shaken and poured into a clean mixing container. The powder is then added gradually with continuous stirring. The use of the ARDEX mixing paddle with a 12mm chuck electric drill makes this light work. For smaller quantities, 3 volumes of powder should be stirred into one volume of latex.

APPLICATION

The mixed material is poured on to the prepared floor surface and spread with a trowel to the required thickness in one operation. The use of a spiked roller may assist in smoothing of the liquid Arditex mortar. Apply at temperatures above 10°C. Arditex is partially self-smoothing, but should any trowel marks persist, the surface may be easily smoothed with a wet trowel once the material is "finger-tight", i.e. not fully hardened. This can usually be done after approximately 40 minutes at normal temperatures. Alternatively the trowel marks may be "stoned" down with a carborundum block once the material has hardened.

To ensure proper curing, provide adequate ventilation during mixing, application and for extended periods after installation.

Thickness: The standard mix is suitable for applications from featheredge up to 12mm, however for thicknesses above 8mm the incorporation of up to an equal volume of 3mm single sized aggregate will prove economic. For thicknesses exceeding 12mm and up to 30mm an equal volume of a suitable size of graded aggregate should be incorporated in the standard mix. Mixes with a high aggregate content may require a subsequent smoothing application of the standard mix of Arditex and, if this is carried out when the aggregate filled mix has dried priming will help prevent air bubbles, suction and also prolong the flow life.

NOTE: that floor grade asphalt should not be covered with more than 6mm of underlayment.

Drying and Hardening: At normal temperatures: Working time approximately 30 minutes. Walkability approximately 2 hours depending on thickness and site conditions. A 3mm Arditex screed is suitable to receive most floor coverings after 24 hours. The setting and drying characteristics have been selected to suit most conditions and types of surfaces to be screeded, enabling Arditex to be used for almost every conceivable application. The setting, hardening and drying times will be extended at low temperatures and shortened at high temperatures. Thicker applications will require a longer time to dry.

External Applications: For the smoothing of external balconies and roof decks prior to the installation of outdoor carpet/synthetic grass or waterproof membrane system - Refer to ARDEX Technical Services Hotline 1800 224 070

Cleaning of Equipment: All tools and mixing containers should be washed and cleaned in water immediately after use before the material sets.

Coverage: Approximately 1.9 kg mortar/m²/mm e.g. one unit will cover approximately 4m² at 3mm thickness or 12m² at 1mm.

Packaging: Arditex powder is packed in paper sacks incorporating a polyethylene liner-net weight 20 kg.

Arditex latex is in white polyethylene containers – net weight 4.4 kg.

Storage: Arditex powder has a storage life of not less than 12 months if stored in dry conditions. Arditex latex has a storage life of not less than 6 months in sealed containers if stored in frost-free conditions, out of direct sunlight.

Precautions: During mixing, application, and for extended periods after installation ensure adequate ventilation to disperse all odours since the latex component contains ammonia, which is volatile and may cause eye watering in confined spaces.

Avoid generation of airborne dust during mixing.

Wash off any mortar or latex on the skin before it dries.

Arditex powder contains more than 20% Portland cement and, therefore, in line with current legislation, is classified as irritating to eyes and skin. For this reason the following precautions should be observed:

Avoid contact with the skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and keep the product out of the reach of children.

Material Safety Data Sheets available on request.

TECHNICAL DATA

Bulk density of powder approximately 1.5 kg/litre
Weight of fresh mortar approximately 1.9 kg/litre
Initial Set (Vicat) DIN 1164 approximately ½ hour
Final Set (Vicat) DIN 1164 approximately 1½ hours

Compressive Strength (DIN 1164):

After 28 days 18.3 N/mm²

Tensile Bending Strength (DIN 1164):

After 28 days 5.9 N/mm²

Ball Pressure Hardness (Brinell):

After 1 day 11.3 N/mm²

After 3 days 20.4 N/mm²

After 7 days 36.3 N/mm²

Arditex latex underlayment has D.O.T. approval for use on UK registered ships in crew and passenger accommodation.

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.

– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 21st May 2003.



ARDEX 25

Synthetic Resin Dispersion

Improving Mortars and Levelling Compounds For High Loads

Increases Elasticity and Walkability

Solvent-Free

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ARDEX 25

Synthetic Resin Dispersion

DESCRIPTION

ARDEX 25 ADMIX is a milky, pinkish synthetic resin dispersion, when mixed with ARDEX Floor Levelling Products improves tensile strength for high traffic applications.

ARDEX 25 AS A MORTAR ADMIX

The diluted primer is used in place of water when mixing ARDEX sub-floor smoothing and levelling compounds. The ARDEX Floor Levelling Compound is applied in the usual way, except that ARDEX 25 diluted 1 part by volume with 2.5 – 5 parts by volume of water is used in lieu of tap water. (The mixing ratio will depend on the end use). The ARDEX 25 additive produces where necessary, a screed with higher tensile strength, greater elasticity and improves walkability and surface hardness as a result of additional synthetic binding. Applications where the diluted ARDEX 25 mixes are recommended are as follows:

1. Where higher than normal strength or abrasion resistance is required, i.e. heavy wheeled traffic or castor wheels and other highpoint loadings (1 part ARDEX 25 to 2.5 parts of water).
2. Where the ARDEX screed has to be unavoidably left open or used as a temporary wearing surface before floorcovering is laid (1 part ARDEX 25 to 2.5 parts of water).
3. When repairing stair treads (1 part ARDEX 25 to 2.5 parts of water).
4. When used as a screed beneath paint and epoxy floor finishes, parquet & rubber flooring (1 part ARDEX 25 to 2.5 parts of water).
5. When used in centrally heated buildings and over underfloor heating. Underfloor heating must be turned off 48 hours before screeding so that the sub-floor is cold (normal temperature) before the screed is laid and then left off for 48 hours per 5mm thickness and gradually brought up to operating temperatures. Precautions against rapid drying should still be observed (1 part ARDEX 25 to 2.5 parts water).
6. When levelling hard internal asphalt sub-floors with ARDEX K15 (1 part ARDEX 25 to 2.5 parts of water).
7. When levelling rigid timber and metal decking (1 part ARDEX 25 to 2.5 parts water).
8. When levelling over ARDEX Moisture Barrier for installation of vinyl tile and sheet, carpet and ceramics (1 part ARDEX 25 to 4.5 parts water).

MATERIAL REQUIREMENT

Typical mix design for ARDEX K15 over ARDEX Moisture Barrier:

| | |
|------------------|------|
| 1 litre ARDEX 25 | plus |
| 4.5 litres water | per |
| 20 kg ARDEX K15 | |

ARDEX K15 over timber, metal, epoxy coatings, left as a wear surface, over floor heating, to accept high traffic castor wheels, parquet & rubber flooring:

| | |
|---------------------|------|
| 1.6 litres ARDEX 25 | plus |
| 4 litres of water | per |
| 20 kg ARDEX K15 | |

PACKAGING AND STORAGE

ARDEX 25 is supplied in 5 litre containers. Protect from frost and direct sunlight.

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
– ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date 22nd May 2003.



ARDEX K 80

Industrial Levelling Compound

Ideal for creating wear surfaces for heavy duty applications

Easy to install – 5mm to 50mm thickness in one application

Quick drying – Walkable in 2 hours

Suitable for Residential, Commercial and Industrial applications

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ARDEX K 80

Industrial Levelling Compound

ARDEX K80 is a rapid hardening, rapid drying, self levelling compound designed to resurface indoor concrete floors. ARDEX K80 produces a wear surface suitable for commercial and industrial areas including warehouse floors, parking garages and utility areas. ARDEX K80 can be walked on after approximately 2 hours and coated after 24 hours and subjected to heavy traffic after 48 hours.

SUBSTRATES

ARDEX K80 is designed for installation over dry, internal, concrete subfloors.

SURFACE PREPARATION

Concrete floors must be clean dry and free of dust, wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant that can affect adhesion.

Mechanically clean the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface. Acid etching is not an acceptable method of cleaning the subfloor. Do not use solvents or sweeping compounds. Subfloors must be dry (AS 1884- 1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 10°C. For further information, contact ARDEX technical services.

PRIMING

Use ARDEX 51 over standard concrete floors prior to the installation of ARDEX levelling compounds. Mix 1 part ARDEX 51 with 2 parts water and apply evenly using a bristle broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min 3 hours, max 24 hours). Very absorbent concrete may require two applications of primer to avoid pinholes and bubbling in the levelling compound. In such cases, make the initial coat 1 part ARDEX 51 diluted with 3 parts water. Allow to dry and install a second coat of 1 part ARDEX 51 diluted with 1 part water. Allow to dry to a thin, clear film (min 3 hours, max 24 hours). In the case of highly power trowelled or extremely dense nonporous concrete, do not use ARDEX 82. These surfaces must be mechanically prepared to achieve a rough, porous surface and primed with ARDEX 51.

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

MIXING RATIO

4 litres of water to 20 kg of K80 powder.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). Normal mixing time of a 20 kg bag is 1 to 2 minutes. Concrete mixers and hand mixing are not suitable methods of mixing. To 4 litres of water, add the ARDEX K80 (20 kg) whilst mixing thoroughly. Do not overwater.

MANUAL INSTALLATION

Pour the mixed ARDEX K80 onto the prepared subfloor and spread in place using the ARDEX stand-up spreader or ARDEX hand trowel. The mixed mortar will flow and trowel marks will self smooth at a thickness greater than 5 mm. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Use the ARDEX smoother for smoothing and touch up. Do not rework the ARDEX K80 after 10 minutes working time. Wear football boots with rubber or nylon studs to avoid leaving marks in the liquid ARDEX K80.

PUMPING INSTALLATION

For ease and efficiency of application, ARDEX K80 can be pumped with a Levelcraft Automatic Mixing Pump. Contact ARDEX technical services for detailed information on pumping.

THICKNESS

ARDEX K80 can be applied from 5mm to 50mm in one application. However, for areas requiring a thickness over 10mm, ARDEX K80 can be mixed with clean 2-7mm aggregate. Mix ARDEX K80 with water first then add 1/3 to 1part by volume of aggregate. If aggregate is wet, reduce the amount of mixing water to avoid over-watering.

When using aggregate, a neat final coat of ARDEX K80 may be required to achieve a smooth surface.

Contact ARDEX technical services for further information.

COATINGS

The hardened ARDEX K80 should be protected from wear, oil, salt, chemicals, abrasives and water, by applying a suitable wear protection system. ARDEX WM163 Polyurethane sealer can be used for light to medium foot traffic areas.

Other systems including epoxy coatings or flooring paints can also be used for heavy traffic areas. Contact ARDEX technical services for further information.

ARDEX K 80

Industrial Levelling Compound

COVERAGE

Approximately 1.65kg powder/mm/m². A 20kg bag will cover approximately 2.4m² at 5mm thickness.

TECHNICAL DATA

Bulk density of powder - 1.3 kg/L
Weight of fresh mortar - 2.0 kg/L

Compressive Strength

After 1 days - 14 MPa
After 7 days - 20 MPa
After 28 days - 32 MPa

Tensile Bending Strength

After 1 days - 3.8 MPa
After 7 days - 5.8 MPa
After 28 days - 9.0 MPa

Ball Pressure Hardness:

After 1 days - 60 MPa
After 7 days - 65 MPa
After 28 days - 90 MPa

STORAGE

ARDEX K80 has a shelf life of 12 months if stored in dry conditions in unopened packaging.

HEALTH & SAFETY

ARDEX K80 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice.

TOLL FREE TECHNICAL SERVICES:

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WA

Phone: (08) 9455 1644

Fax: (08) 9455 1227

New Zealand (Christchurch)

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NOTE

ARDEX products are generally warranted for 10 years when installed to the relevant Australian Standards and applicable ARDEX specification, technical data sheet and instruction for application and use.

While we assure customers the high standard and quality of our products and services, we accept no liability for any loss or damage which arises from particular site conditions, poor handling and storage, or installation by unqualified and unskilled applicators.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.

- ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date March 2006.



ARDEX K 11

Internal Levelling & Smoothing Compound

Quick Drying - Walkable after only 2-3 hours

Easy to install - 2mm to 8mm in one application

Versatile - Can be hand mixed or pump applied

Suitable for Residential and Commercial applications

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ARDEX K 11

Internal Levelling & Smoothing Compound

DESCRIPTION

ARDEX K 11 is a levelling and smoothing compound designed to level and smooth internal sub-floors prior to applying floor finishes. SUBSTRATES ARDEX K 11 is designed for installation over internal, dry, concrete substrates. Do not use for installations over timber, steel decking, hardiflex, or subfloors subject to vibration. For these areas ARDEX recommend the use of ARDEX K 15 with ARDEX 25 resilient emulsion added to increase the resiliency and cohesive strength. Contact ARDEX technical services for technical bulletins on these types of applications.

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface. Acid etching is not an acceptable method of cleaning the subfloor.

Do not use solvents or sweeping compounds. Subfloors must be dry (AS 1884-1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 10°C. For further information, contact ARDEX technical services.

PRIMING

Use ARDEX 51 over standard concrete floors prior to the installation of ARDEX levelling compounds. Mix 1 part ARDEX 51 with 2 parts water and apply evenly using a bristle broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min 3 hours, max 24 hours). Very absorbent concrete may require two applications of primer to avoid pinholes and bubbling in the levelling compound. In such cases, make the initial coat 1 part ARDEX 51 diluted with 3 parts water. Allow to dry and install a second coat of 1 part ARDEX 51 diluted with 1 part water. Allow to dry to a thin, clear film (min 3 hours, max 24 hours).

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

MIXING RATIO

4.5 litres of water to 20 kg of K 11 powder.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). Normal mixing time of a 20 kg bag is 2 to 3 minutes. Concrete mixers and hand mixing are not suitable methods of mixing. To 4.5 litres of water, add the ARDEX K 11 (20 kg) whilst mixing thoroughly. Do not overwater.

MANUAL INSTALLATION

Pour the mixed ARDEX K 11 onto the prepared subfloor and spread in place using the ARDEX stand-up spreader or ARDEX hand trowel. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Use the ARDEX smoother for smoothing, featheredging and touch up. Do not rework the ARDEX K 11 after 10 minutes working time. Wear football boots with rubber or nylon studs to avoid leaving marks in the liquid ARDEX K 11.

PUMPING INSTALLATION

For ease and efficiency of application, ARDEX K 11 can be pumped with a Levelcraft Automatic Mixing Pump. Contact ARDEX technical services for detailed information on pumping.

SPECIFIC APPLICATIONS

ARDEX K 11 can be used over heated subfloors. For this application, use in conjunction with ARDEX E25 resilient emulsion. Reduce the mixing water to 3.5 litres and add 1.6 litres of ARDEX E25. Contact ARDEX technical services for detailed information on these types of applications.

For areas subject to heavy traffic and heavy loads, such as supermarkets, extended times must be allowed before the floor is subjected to highly loaded trolleys. At 20°C, it is recommended that 7 days cure are allowed before heavy loads. Low temperatures may extend this time. ARDEX E25 can also be used to increase strength and resiliency.

THICKNESS

ARDEX K 11 can be applied from 2mm to 8mm in one application without aggregate. For areas requiring a thickness over 8mm to a maximum of 20mm, ARDEX K 11 must be mixed with a well washed and dried 2.8mm – 7mm aggregate. Mix ARDEX K 11 with water first then add the aggregate in equal volume to mixed mortar whilst mixing.

DRYING TIME

Allow approximately 2-3 hours at 20°C, before foot traffic. Conventionally laid carpet and floating floors can be installed after 24 hours. Direct stick applications and vinyl flooring after 48 hours. Higher temperatures will reduce the drying time, whilst lower temperatures will extend drying time.

COVERAGE

Approximately 1.67 kg powder/mm². A 20kg bag will cover approximately 4m² at 3mm thickness.

TECHNICAL DATA

Bulk density of powder - 1.2 kg/L
Weight of fresh mortar - 2.0 kg/L

Compressive Strength

After 1 days - 5 MPa
After 7 days - 16 MPa
After 28 days - 30 MPa

Tensile Bending Strength

After 1 days - 1 MPa
After 7 days - 3 MPa
After 28 days - 6 MPa

Ball Pressure Hardness:

After 1 days - 20 MPa
After 7 days - 55 MPa
After 28 days - 60 MPa

STORAGE

ARDEX K 11 has a shelf life of 12 months if stored in dry conditions in unopened packaging.

HEALTH & SAFETY

ARDEX K 11 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice. Material Safety Data Sheets are available on request.

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NOTE

ARDEX products are generally warranted for 10 years when installed to the relevant Australian Standards and applicable ARDEX specification, technical data sheet and instruction for application and use. While we assure customers the high standard and quality of our products and services, we accept no liability for any loss or damage which arises from particular site conditions, poor handling and storage, or installation by unqualified and unskilled applicators.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
- ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date March 2006.



ARDEX DPF 005

Bulk-fill Levelling Compound

Ideal for levelling in thick layers up to 120 mm

Easy to install - designed with minimal flow

Strong - suitable for heavy duty traffic

Compatible with other Ardex levelling products such as

ARDEX K15 and CL 11

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ARDEX DPF 005

Bulk-fill Levelling Compound

DESCRIPTION

ARDEX DPF005 is a cement based underlay for levelling subfloors prior to the application of a floor finish. It is designed with a coarse sand aggregate and minimal flow for the easy and efficient installations of thick layers. It can also be used as a fast set screed when mixing ratio is reduced.

SUBSTRATES

ARDEX DPF005 is designed for levelling and adjusting tolerances on internal concrete slabs. For other substrates such as timber, ceramic, terrazzo, steel decking or external applications contact ARDEX technical services for detailed information on these procedures.

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminants. Mechanically clean the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface.

Acid etching is not an acceptable method of cleaning the subfloor. Do not use solvents or sweeping compounds.

Subfloors must be dry (AS 1884-1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 10°C. For further information, contact ARDEX technical services.

PRIMING

Use ARDEX 51 over standard concrete floors prior to the installation of ARDEX levelling compounds. Mix 1 part ARDEX 51 with 2 parts water and apply evenly using a brush. Do not use paint rollers, mops or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min 3 hours, max 24 hours).

Very absorbent concrete may require two applications of primer to avoid pinholes and bubbling in the levelling compound. In such cases, make the initial coat 1 part ARDEX 51 diluted with 3 parts water. Allow to dry and install a second coat of 1 part ARDEX 51 diluted with 1 part water. Allow to dry to a thin, clear film (min 3 hours, max 24 hours).

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

MIXING RATIO

2.7 litres of water to 20 kg of ARDEX DPF005 powder when used as a leveller, or;

2.3 litres of water to 20 kg of ARDEX DPF005 powder when used as a fast set screed.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). Normal mixing time of a 20 kg bag is 1 to 2 minutes. Concrete mixers and hand mixing are not suitable methods of mixing.

To the required volume of water, add the ARDEX DPF005 (20 kg) whilst mixing thoroughly. Do not overwater.

MANUAL INSTALLATION

Pour the mixed ARDEX DPF005 onto the prepared subfloor and spread into place using the ARDEX stand-up spreader or ARDEX hand trowel. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Use the ARDEX smoother for smoothing and touch up. ARDEX DPF005 has a working time of approximately 10 minutes.

PUMPING INSTALLATION

For ease and efficiency of application, ARDEX DPF005 can be pumped. Contact ARDEX technical services for detailed information on pumping.

THICKNESS

ARDEX DPF005 can be applied from 10 mm to 120 mm thickness in one application.

COVERAGE

Approximately 1.9 kg ARDEX DPF005 powder per square metre of a thickness of 1mm i.e. 11 m² at 1mm thickness per 20kg bag.

DRYING-HARDENING

ARDEX DPF005 sets by hydration. A 120 mm layer will harden after approximately 4 hours at 23°C., and can be walked on after this time. Hardening and drying time will be extended in cooler climates, and shortened in warmer climates. Thicker layers will also extend drying times.

ARDEX DPF 005

Bulk-fill Levelling Compound

TECHNICAL DATA

Bulk density of powder - 1.5 kg/L
Weight of fresh mortar - 2.16 kg/L

Compressive Strength

After 1 days - 14 MPa
After 3 days - 16 MPa
After 28 days - 27 MPa

Tensile Bending Strength

After 1 days - 5 MPa
After 3 days - 6 MPa
After 28 days - 10 MPa

STORAGE

ARDEX DPF005 has a shelf life of approx 12 months if stored in dry conditions in unopened packaging.

HEALTH & SAFETY

ARDEX DPF005 contains Portland cement and Silica sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice.

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NOTE

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
- ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date March 2006.



ARDEX A 55

Rapid Drying Levelling & Smoothing Compound

Ultra Rapid Drying - Install most floorcoverings after 1 - 2 hours

Easy to install - 1mm to any thickness in one application

Self Smoothing

Suitable for Residential and Commercial applications

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ARDEX A 55

Rapid Drying Levelling & Smoothing Compound

DESCRIPTION

ARDEX A 55 is a rapid drying levelling and smoothing compound designed to level and smooth internal sub-floors prior to applying floor finishes. It is perfect for rapid renovation and repair work as most floorcoverings can be installed after 1 hour.

SUBSTRATES

ARDEX A 55 can be installed in levelling systems over a number of substrates including concrete, ceramic*, terrazzo*, power-trowelled (burnished) concrete* and high-strength concrete* greater than 35 MPa.

*(Contact ARDEX technical services for information on these procedures).

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface. Acid etching is not an acceptable method of cleaning the subfloor. Do not use solvents or sweeping compounds. Subfloors must be dry (AS 1884-1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 10°C. For further information, contact ARDEX technical services.

PRIMING

Use ARDEX 51 over standard concrete floors prior to the installation of ARDEX levelling compounds. Mix 1 part ARDEX 51 with 2 parts water and apply evenly using a bristle broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min 3 hours, max 24 hours). Very absorbent concrete may require two applications of primer to avoid pinholes and bubbling in the levelling compound. In such cases, make the initial coat 1 part ARDEX 51 diluted with 3 parts water. Allow to dry and install a second coat of 1 part ARDEX 51 diluted with 1 part water. Allow to dry to a thin, clear film (min 3 hours, max 24 hours).

Use ARDEX 82 ULTRA PRIME for non-absorbent subfloors such as ceramic and quarry tile and terrazzo. Mix part A (red) with part B (white) and apply with a short-nap or sponge paint roller, leaving a thin transparent pink coat of primer no heavier than a coat of paint. Do not leave any bare spots. Roll off any areas of excess primer. Allow to dry to a thin, slightly tacky film (min 3 hours, max 24 hours). ARDEX 82 must be applied in a thin layer within 1 hour of mixing. A thick coat will produce a soft and rubbery surface, which may result in cracking of the

levelling compound.

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

MIXING RATIO

6.5 litres of water to 25kg of A 55 powder.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). Normal mixing time of a 25 kg bag is 2 to 3 minutes. Concrete mixers and hand mixing are not suitable methods of mixing. To 6.5 litres of water, add the ARDEX A 55 (25 kg) whilst mixing thoroughly. Do not overwater.

INSTALLATION

Pour the mixed ARDEX A 55 onto the prepared subfloor and spread in place using the ARDEX stand-up spreader or ARDEX hand trowel. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Use the ARDEX smoother for smoothing, featheredging and touch up. Do not rework the ARDEX A 55 after 10 minutes working time. Wear football boots with rubber or nylon studs to avoid leaving marks in the liquid ARDEX A 55.

THICKNESS

ARDEX A 55 can be applied from 1mm to any thickness in one application. For areas requiring a thickness over 10mm, ARDEX A55 should be mixed with a well washed and dried 2.8mm – 7mm aggregate in equal volume. Mix ARDEX A 55 with water first then add the aggregate in equal volume to mixed mortar whilst mixing.

DRYING TIME

Most floorcoverings can be installed after 1 hour under normal drying conditions at 20°C. Higher temperatures will reduce the drying time, whilst lower temperatures will extend drying time.

HIGH STRESS AREAS

For heated subfloors, or areas subject to high loads, please refer to ARDEX technical services for information on using ARDEX E25.

COVERAGE

Approximately 1.5 kg powder/mm/m². A 25kg bag will cover approximately 17m² at 1mm thickness.

TECHNICAL DATA

Bulk density of powder - 1.2 kg/L
Weight of fresh mortar - 1.9 kg/L

Compressive Strength

After 1 days - 20 MPa
After 7 days - 30 MPa
After 28 days - 35 MPa

Tensile Bending Strength

After 1 days - 6 MPa
After 7 days - 8 MPa
After 28 days - 10 MPa

Ball Pressure Hardness:

After 1 days - 40 MPa
After 7 days - 50 MPa
After 28 days - 60 MPa

STORAGE

ARDEX A 55 has a shelf life of 6 months if stored in dry conditions in unopened packaging.

HEALTH & SAFETY

ARDEX A 55 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice. Material Safety Data Sheets are available on request.

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NOTE

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ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.
- ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date March 2006.



ARDEX A 46

External Patching Compound

For external repairs to concrete floors, walls and stairs

Ideal for smoothing surfaces and forming ramps

Quick Drying - Trafficable after 2-3 hours

Easy to install - 2mm to 30mm in one application

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ARDEX A 46

External Patching Compound

ARDEX A46 is a rapid hardening, rapid drying, slump-free mortar for external repairs. It is ideal for repairing and resurfacing concrete stair treads and risers and concrete subfloors. Also for filling and patching cracks in walls, ceilings, window and door frames, and can be used to form ramps from 2mm – 30mm. Mixed mortar sets after 15-20 minutes and can be subjected to foot traffic after 2-3 hours at 20°C

SURFACE PREPARATION

ARDEX A46 can be applied directly to dry or moist substrates provided they are set and hardened and the surface is sound, free of dust, grease, oil and other surface contamination. Worn or trafficked surfaces should be abraded with a diamond grinder or scarifier to remove any contamination and to roughen concrete to expose a clean porous surface to ensure good adhesion. Priming is not generally required for these types of surfaces, unless they are extremely porous, in which case prime with ARDEX P51. Subfloor temperatures must be a minimum of 10°C, and maximum of 30°C. For further information, contact ARDEX technical services.

MIXING RATIO

Approximately 6 - 7 litres of water to 25 kg of A 46 powder, or; 1 volume of water to 3.5 volume of A 46 powder.

MIXING

ARDEX repair products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free, slump resistant mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). To 6 - 7 litres of water, add the ARDEX A 46 (25 kg) whilst mixing thoroughly. Do not overwater. If the mix initially appears dry, continue mixing for a full 2 - 3 minutes until a creamy non-slump mortar is achieved, do not add additional water. The mixed mortar has a working time of 15 - 20 minutes at 20°C. This time will be extended in cooler temperatures, and reduced at higher temperatures.

THICKNESS

ARDEX A 46 can be applied from 2 – 30mm in one application.

INSTALLATION

For repairs, apply the mortar with a trowel to holes, cracks and damaged areas, ensuring that the mortar “wets” the surface by trowelling in firmly, leaving the repair proud. After approximately 15 minutes, trim off excess and finish off with a wet trowel, sponge, or sponge float to obtain a smooth surface. For ramps, work the mortar into the prepared substrates with a trowel. If floorcoverings are to be installed, ARDEX A 46 must be left for 24 hours. If the product is to be coated, it should be left for 2 days up to 5mm, 5 days up to 10mm, 7 days up to 20mm and 10 days up to 30 mm. These times will be shorter in warm conditions and longer in cooler conditions. Note: Exterior installations must be protected from direct sunlight and draughts which could lead to accelerated drying of the surface.

LIMITATIONS

ARDEX A 46 is suitable for foot traffic and light duty, soft wheel, vehicle traffic. Do not use for heavy duty areas such as areas subjected to heavy vehicles, or heavily trafficked areas.

COVERAGE

Approximately 1.4 kg powder/mm/m².

TECHNICAL DATA

| | |
|---------------------------------|----------|
| Bulk density of powder - | 1.3 g/L |
| Weight of fresh mortar - | 1.8 kg/L |
| Compressive Strength | |
| After 1 days - | 10 MPa |
| After 7 days - | 15 MPa |
| After 28 days - | 20 MPa |
| Tensile Bending Strength | |
| After 1 days - | 2 MPa |
| After 7 days - | 4 MPa |
| After 28 days - | 6 MPa |

STORAGE

ARDEX A 46 has a shelf life of 12 months if stored in dry conditions in unopened packaging.

ARDEX A 46

External Patching Compound

HEALTH & SAFETY

ARDEX A 46 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice. Material Safety Data Sheets are available on request.

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Date March 2006.



ARDEX K 301

Exterior Levelling & Smoothing Compound

Quick Drying - Walkable after only 2-3 hours

Easy to install - 2mm to 20mm in one application

Versatile - Can be hand mixed or pump applied

Suitable for interior and exterior applications

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ARDEX K 301

Exterior Levelling & Smoothing Compound

DESCRIPTION

ARDEX K 301 is a levelling and smoothing compound for repairing and resurfacing internal and external concrete floors and sand/cement screeds. It can be used for filling, smoothing and levelling subfloors prior to coating, or installing tiles or other suitable floorcoverings. ARDEX K 301 can also be used as a wear surface in workshops, domestic garages, storage areas, light commercial areas, courtyards and footpaths.

SUBSTRATES

ARDEX K 301 can be applied internally or externally, directly to dry or moist substrates provided they are set and hardened.

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface. Acid etching is not an acceptable method of cleaning the subfloor. Do not use solvents or sweeping compounds. Subfloors must be dry (AS 1884-1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 10°C. For further information, contact ARDEX technical services.

PRIMING

Priming is not generally required for these types of surfaces, unless they are extremely porous, in which case prime with ARDEX P51. Mix 1 part ARDEX 51 with 1 part water and apply evenly using a brush. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min 3 hours, max 24 hours).

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

MIXING RATIO

5 litres of water to 25 kg of K 301 powder.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy duty electric drill (650 rpm). Normal mixing time of a 20 kg bag is 2 to 3 minutes. Concrete mixers and hand mixing are not suitable methods of mixing. To 5 litres of water, add the ARDEX K 301 (25 kg) whilst mixing thoroughly. Do not overwater.

MANUAL INSTALLATION

Pour the mixed ARDEX K 301 onto the prepared subfloor. If subfloor has not been primed, apply material in a thin layer and work into the surface, then apply further material to the required thickness. Spread in place using the ARDEX stand-up spreader or ARDEX hand trowel. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Do not rework the ARDEX K 301 after 20 - 30 minutes working time. Wear football boots with rubber or nylon studs to avoid leaving marks in the liquid ARDEX K 301. If floorcoverings are to be installed, ARDEX K 301 must be left for 24 hours. If the product is to be coated, it should be left for 2 days up to 5mm, 5 days up to 10mm and 7 days up to 20mm. These times will be shorter in warm conditions and longer in cooler conditions. Note: Exterior installations must be protected from direct sunlight and draughts which could lead to accelerated drying of the surface.

PUMPING INSTALLATION

For ease and efficiency of application in large areas, ARDEX K 301 can be pumped with a Levelcraft Automatic Mixing Pump. Contact ARDEX technical services for detailed information on pumping.

THICKNESS

ARDEX K 301 can be applied from 2mm to 20mm in one application.

DRYING TIME

Allow approximately 2-3 hours at 20°C, before foot traffic. Conventionally laid carpet and floating floors can be installed after 24 hours. Direct stick applications and vinyl flooring after 48 hours. Higher temperatures will reduce the drying time, whilst lower temperatures will extend drying time.

COVERAGE

Approximately 1.6 kg powder/mm/m². A 25kg bag will cover approximately 8m² at 2mm thickness.

TECHNICAL DATA

Bulk density of powder - 1.4 kg/L

Weight of fresh mortar - 1.9 kg/L

Compressive Strength

After 1 days - 8 MPa

After 7 days - 20 MPa

After 28 days - 30 MPa

Tensile Bending Strength

After 1 days - 2 MPa

After 7 days - 4 MPa

After 28 days - 7 MPa

STORAGE

ARDEX K 301 has a shelf life of 12 months if stored in dry conditions in unopened packaging.

HEALTH & SAFETY

ARDEX K 301 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse effected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear, and rinse mouth with running water. If symptoms persist, seek medical advice. Material Safety Data Sheets are available on request.

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NOTE

ARDEX products are generally warranted for 10 years when installed to the relevant Australian Standards and applicable ARDEX specification, technical data sheet and instruction for application and use. While we assure customers the high standard and quality of our products and services, we accept no liability for any loss or damage which arises from particular site conditions, poor handling and storage, or installation by unqualified and unskilled applicators.

ARDEX products are manufactured in Australia.

ARDEX AUSTRALIA Pty Ltd.

- ABN 82 000 550 005



Materials are also manufactured in Austria, Denmark, United Kingdom, France, Germany, Singapore, Spain, USA and represented throughout the world.

Date March 2006.



ARDEX B12

Concrete Finishing Compound

Internal and External-Resistant to Water and Weather

Fast Setting Concrete Rendering and Repairing Compound

Smoothing and Filling Cavities-Walls and Ceilings

Feather Edge to 5mm or 10mm Thickness with a
Sand/Aggregate Filler

Fine Smooth Finish over Concrete, Render, Brickwork,
Masonry Block, Aerated Concrete, Pre-Cast Concrete

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ARDEX B12

Concrete Finishing Compound

USE

Smoothing, repairing, levelling and coating walls and ceilings made of fair-faced concrete, pre-fabricated concrete elements, cement or lime plasterings and renderings and rough masonry.

Filling wall and ceiling cracks, holes and large-surface cavities.

Smoothing down interior wall surfaces made of aerated concrete.

Outdoors and Indoors.

DESCRIPTION

Grey cement-based powder.

When mixed with water the result is a supple, paste-like, stable mortar, which is easy to work and in every thickness hardens by hydration and drying to a virtually tension-free compound with a cement-grey colour that is capable of breathing, resistant to water and weather and adheres practically inseparably to suitably prepared substrates.

SUBSTRATE PREPARATION

The substrate can be dry or moist, but must be roughened, firm and free from dust, dirt and other release agents.

Coats of paint, plastering and rendering residue, lime spatter, etc., must be removed.

APPLICATION

Clear water is put into a clean mixing container and whilst stirring vigorously as much powder is mixed in to give a supple, paste-like, lump-free mortar.

Approximately 6.6 litres of water are needed to mix 20kg of ARDEX B12 powder.

The mortar is workable for about 45 minutes at +18 to +20°C and can be applied in one operation to 5mm without fillers or as thick as desired when filled. It hardens by hydration and drying under normal temperature in approximately 2 hours to such an extent that further operations such as grinding or subsequent smoothing with ARDEX B12 can be carried out.

For layers over 5mm maximum 10mm – ARDEX B12 mortar must have a filler or washed sand, grain size 0 – 4mm of up to 1/3 of the mortar volume; for layers over 10mm gravel of grain size 4 – 8mm must be used as a filler.

In order to achieve a colour match with surrounding concrete surfaces the cement-grey ARDEX B12 concrete finishing compound can be brightened with FASSIT 11 façade finishing compound (white) or dyed with cement-fast colour pigments. Any amount of FASSIT 11 powder can be mixed into the ARDEX B12 mortar. Colour pigments should first be mixed with water to form a paste then added as such to the ARDEX B12 mortar. The colour additive can be up to 5% by weight of the ARDEX B12 powder.

ARDEX B12 can be used to fill settlement cracks. Hairline settlement cracks or cracks in plastering and rendering must first be extended before filling with ARDEX B12 mortar. There is no guarantee that those cracks will not reappear in case of foundation movement.

If in doubt, it is advisable to carry out a test.

ARDEX B12 must be worked at temperatures above +10°C both outdoors and indoors.

SUBSEQUENT TREATMENT

After complete drying ARDEX B12 can be coated with lime-resistant paint. Drying time depends on layer thickness and the prevailing weather conditions. A substrate that is still moist may produce efflorescence.

Paint manufacturers' handling recommendations with regard to cement-bound substrates must be complied with – regardless of whether the filling is all over or only in places.

NOTE: Contains cement. Irritates the eyes and the skin. May not come into children's hands. Avoid any contact with the eyes and the skin. In case of eye contact wash thoroughly with water at once and consult a doctor. Wear suitable protective gloves.

Physiologically and ecologically safe when in a set state.

TECHNICAL DATA

According to ARDEX quality standards

Mixing ratio: approx 6.6 litre water: 20kg powder is equivalent to approx 1 vol. of water: 2³/₄ vol. of powder.

Bulk density: approx. 1.1 kg/litre

Mortar weight when freshly mixed: approx 1.7 kg/litre

Material requirement: Approx 1.2 kg powder per m² per mm

Working time (+20°C): approx. 45 minutes

Compressive Strength:
after 7 days approx. 8 N/mm²
after 28 days approx. 10 N/mm²

Tensile bending Strength:
after 7 days approx. 3 N/mm²
after 28 days approx. 5 N/mm²

pH-value approx. 12

Corrosion tendency: contains no ingredients with a corrosive influence on steel

GISCODE: ZP 1

ARDEX B12

Concrete Finishing Compound

Packaging: sacks with 20kg net.

Storage: can be stored for approximately 12 months in dry rooms in originally sealed packaging.

NOTE: The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application. Users are asked to check that the literature in their possession is the latest issue.

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Date 22nd May 2003.

