



CI/SfB

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BUILDING DIVISION
PRODUCT DATA SHEET

PRIMING, PREPARATION, CLEANING AND MAINTENANCE FOR ARDEX INDUSTRIAL FLOORING PRODUCTS

The products covered by this leaflet are

ARDEX P 51 Primer and Bonding Agent

ARDEX R 3 E Solvent Free Epoxy Primer

ARDEX R 8 P Polyurethane Tack Coat

ARDEX DGR Degreaser

ARDEX RTC Tool Cleaner

All these materials are designed for use with other
ARDEX products.



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ARDEX P 51

Primer and Bonding Agent

ARDEX P 51 is a water-based emulsion primer for use in the preparation of internal surfaces prior to the application of ARDEX SD-T.

APPLICATION

Agitate container well before use. Always dilute before use where applicable. Apply either the diluted or undiluted primer evenly to the clean, sound and dust free surface. Use a soft broom for priming concrete sub-floors and leave to dry to a clear thin film.

Priming for ARDEX SD-T Industrial Floor System:

For general priming of concrete prior to applying ARDEX SD-T Industrial Floor System, use ARDEX P 51 diluted 1:1 with water.

For absorbent concrete sub-floors, prime with ARDEX P 51 diluted 1:3 with water, once dry (1-3 hours) apply a second application, diluted 1:1 and allow to dry thoroughly.

COVERAGE

5kg ARDEX P 51 diluted with 3 volumes of water is sufficient for priming approximately 100 square metres.

5kg ARDEX P 51 diluted with an equal volume of water is sufficient for priming approximately 35 square metres.

NOTE: The above coverage figures will vary depending on the texture and absorbency of the substrate.

PACKAGING AND STORAGE

High density polyethylene containers of 25kg, 5kg and 1kg. Protect from frost and direct sunlight.

STORAGE AND SHELF LIFE

ARDEX P 51 has a storage life of not less than 12 months in the original unopened containers.

PRECAUTIONS

Aqueous synthetic based dispersion. Wash off from skin before drying takes place. Any material splashed into the eye, mouth or nose should be washed away immediately with clean water. Avoid ingestion. Small amounts are unlikely to cause more than temporary discomfort. If large amounts are swallowed, a doctor or hospital must be contacted at once.

For the latest health and safety information on this product consult the current health and safety data sheet.

ARDEX R 3 E

Solvent Free Epoxy Primer

ARDEX R 3 E Solvent Free Epoxy Primer is a two component solvent free epoxy resin for use with ARDEX polyurethane screeds and self-smoothing epoxy floor coatings. Blind with ARDEX Fine Aggregate and use as a primer prior to applying thick applications of the ARDEX SD-T Industrial Floor System, or other appropriate ARDEX cement-based products.

Where surfaces are very porous, more than one coat of primer may be required to achieve the desired bonding efficiency.

For applications on new concrete or where the relative humidity (RH) of the substrate is in excess of 75%, ARDEX DPM should be used. If the substrate is particularly smooth, the surface of the ARDEX R 3 E Solvent Free Epoxy Primer should be seeded with ARDEX Fine Aggregate immediately after application to give a mechanical key to facilitate installation of resin screeds and toppings.

SUBSTRATE PREPARATION

The concrete or screed substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc., that will inhibit adhesion to the substrate.

Use ARDEX DGR to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying ARDEX R 3 E Solvent Free Epoxy Primer. Overwatered or otherwise weak concrete surfaces must also be suitably prepared down to sound, solid concrete by mechanical methods. Dust and other debris should be removed using vacuum equipment.

NOTE: Any joints or cracks in the concrete base where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface and suitably sealed. New concrete slabs must be allowed to cure for at least 14 days.

MIXING

The individual components of the ARDEX R 3 E Solvent Free Epoxy Primer should be thoroughly stirred before being mixed together. The entire contents of the hardener container (component B) should be poured into the resin container (component A) and the two materials mixed thoroughly for at least 3 minutes using a heavy duty slow speed drill and spiral paddle. Some of the mixed components should be reintroduced back into the hardener container in order to activate any residue and then poured back into the larger mixing vessel and re-mixed for 30 seconds. Mixing in this way will ensure product consistency and that any resin that remains in the containers after application will cure to provide for easier waste disposal.

APPLICATION

Once mixed, the material should be spread over the floor as self-heating in the container will reduce working time. Apply using a brush or short/medium pile roller. One or more coats may be needed to ensure that a uniform coating is achieved and to compensate for differences in surface porosity.

All movement joints in the sub-floor must be carried through the topping and properly sealed. Construction joints and cracks not subject to movement may be overlaid but should the floor move in anyway, these defects will reflect through the system. Isolation joints will need to be allowed for in areas where high thermal movement is anticipated, e.g. around ovens and freezers.

PHYSICAL PROPERTIES

Working time	20 mins at 20°C
Walkability	6-8 hours at 20°C

ARDEX R 3 E Solvent Free Epoxy Primer should be allowed to cure prior to the installation of the final floor finish, typically 24 hours at 20°C.

COVERAGE

Approximately 24m² per 6kg unit.

PACKAGING

6kg units of ARDEX R 3 E Solvent Free Epoxy Primer are supplied in pre-gauged metal duo containers.

The hardener (component B) is in the small container and the resin (component A) is in the large container with room to mix in the hardener (component B).

STORAGE AND SHELF LIFE

Store in dry conditions. ARDEX R 3 E Solvent Free Epoxy Primer has a storage life of not less than 6 months in the original unopened containers.

PRECAUTIONS

The hardener which contains 4,4' - isopropylidenediphenol and amines classified as corrosive and the epoxy resin which contains bisphenol A/F-epichlorhydrin, can be irritating to the eyes and skin, and may cause sensitisation by contact. They are considered harmful in contact with the skin and if swallowed. During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream.

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

For the latest health and safety information on this product consult the current health and safety data sheet.

ARDEX R 8 P

Polyurethane Tack Coat

ARDEX R 8 P Polyurethane Tack Coat is a two component 'tack' coat specifically formulated for use with ARDEX R 10 P Coving and Wall Render. ARDEX R 8 P Polyurethane Tack Coat provides excellent adhesion and is suitable for use on concrete, brick and blockwork etc. Where surfaces are very porous, the first coat of ARDEX R 8 P Polyurethane Tack Coat must be left to cure before applying the subsequent layer. Vertical surfaces must be of a rigid construction to resist deflection during the application process.

APPLICATION

All surfaces must be thoroughly mechanically prepared, cleaned and made good to ensure a good mechanical key and adhesion. ARDEX R 8 P Polyurethane Tack Coat is supplied as a two component pack, Part A and Part B. The entire contents of Part A and Part B have to be thoroughly mixed prior to use, using a slow speed drill with a spiral mixing paddle in a clean mixing bucket.

The mixed product has a limited pot life and therefore should be applied to the substrate using a brush or short/medium pile roller without delay. One or more coats may be necessary to compensate for surface porosity. The mixed ARDEX R 10 P Coving and Wall Render should be applied when the tack coat has developed sufficient 'tack' to prevent the wall render from sliding or sagging.

PHYSICAL PROPERTIES

Pot life 20 minutes @ 20°C
Open time 8 hours @ 20°C

COVERAGE

A 2.4kg unit will cover approximately 8-12m² depending on the porosity of the background.

PACKAGING AND STORAGE

Part A and Part B. Store in dry conditions between 5°C and 30°C, protect from frost and direct sunlight. Storage life not less than 6 months in the original unopened packaging.

PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of

the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream.

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents).

Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials.

Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

For the latest health and safety information on this product consult the current health and safety data sheet.

ARDEX DGR

Degreaser

This is a liquid which is highly effective in removing grease, wax, etc., reducing these contaminants to a water dispersible consistency. It is used for cleaning surfaces that are contaminated with wax, grease, oil, etc., prior to mechanical preparation. May be used on damp surfaces and is also useful for cleaning paint brushes, machinery etc.

APPLICATION

Scrape off excess deposits of wax, oil or any other contaminating or loosely bonded materials and apply ARDEX DGR using a brush, squeegee or soft broom. Leave for 3 to 4 minutes, when even old coats of wax, grease, oil, etc., will be dissolved, and wipe up with a damp cloth or mop, rinsing frequently with clean water until the surface is clean.

If contamination is severe, a second application may be required and in such cases it is not necessary to wait for the surface to dry before the second treatment is applied. When the surface to be treated is only lightly contaminated with dirt, etc., ARDEX DGR may be diluted with from 5 to 10 volumes of water and left to work for 10 minutes, wiping off with a damp cloth as before.

COVERAGE

36 to 45 square metres per 4.5 litres (undiluted).

PACKAGING AND STORAGE

4.5 litre containers. Store in a dry place out of direct sunlight.

STORAGE LIFE

ARDEX DGR has a storage life of not less than 12 months in the original unopened containers.

PRECAUTIONS

Contains solvents - harmful - flammable. Keep away from sources of ignition - no smoking. Avoid inhalation of solvent vapours. Use only in well ventilated areas. Prolonged and concentrated exposure can cause narcosis and irritation of the mucous membranes, respiratory system, eyes and skin. Contact with the skin must be avoided by the use of gloves, barrier creams, etc. Any material splashed into the eye, mouth or nose must be washed out with copious amounts of water without delay. This material must not be ingested and in the event of an accident seek medical advice.

For the latest health and safety information on this product consult the current health and safety data sheet.

ARDEX RTC

Tool Cleaner

Highly effective low toxicity, biodegradable, high flash point liquid cleaner for tools and equipment that have been used for the mixing and application of ARDEX resin-based systems.

NOTE: For maximum effect, use before the resin has cured.

STORAGE LIFE

Not less than 12 months in the original unopened container.

DISPOSAL

Safe handling: Do not pour into drains. Obtain the services of a waste disposal contractor for advice. Otherwise send to a registered tip to comply with local and national regulations.

PRECAUTIONS

Avoid contact with skin and 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.

For the latest health and safety information on this product consult the current health and safety data sheet.

SURFACE PREPARATION

Thorough and appropriate surface preparation is essential for the long-term performance of the floor and is the foundation of any good flooring installation. The choice of technique to be used will be determined by the site conditions and sometimes will necessitate a combination of methods to ensure that a satisfactory substrate is achieved.

Suitable methods include contained shot blasting and surface planing or scabbling.

Very oily or grease contaminated floors need particular care and treatment such as hot compressed air which should be used in combination with degreasing and mechanical preparation.

Diamond grinders, along with scabbling machines, can also be used to remove high spots from the surface; some scabbling machines can remove up to 6mm of concrete in one pass and can therefore help to control levels.

Whichever technique is used, the edges of the floor and any other areas where the large surface preparation machines cannot reach must also be prepared, typically by edge grinding.

NOTE: Percussive scabbling is not normally recommended.

A visual examination of the concrete surface is essential but will only give an overview of surface condition and damage sustained. The physical condition of the concrete also needs to be assessed for strength, including pull-off strength, moisture content and presence of an effective damp proof membrane.

Surface strength should be tested after preparation, in accordance with BS 8204-6:2001, which recommends a rebound hammer strength of 25 N/mm² or a minimum surface tensile strength of 1.5 N/mm². The long-term performance of any system bonded to a substrate depends on the adhesion achieved, which itself depends upon the substrate having sufficient cohesive strength and being thoroughly prepared.

New direct finished base slabs or fine concrete screeds should be designed in accordance with BS 8204-1: 1999, laid to falls as necessary and not contain a water repellent admixture.

Minor repairs to cracks or holes should be carried out using an appropriate ARDEX product. Any joints or cracks subject to movement must be brought through to the final floor finish and a suitable movement joint profile and nosing joint detail used to avoid reflective cracking. Any resin based repairs which will be covered by ARDEX Industrial Products must be hard, sound and blinded with an appropriate aggregate.

Once a new industrial floor has been installed it should be protected from other trades and contamination until the recommended curing period has elapsed.

MAINTENANCE OF RESIN FLOORINGS

The floor finish provides an aesthetic finish, a wearing surface and protects the substrate concrete from chemicals.

To ensure that the appearance of the flooring is kept at its best, performs as it should and stays in the required hygienic condition, it is important to follow good housekeeping and identify an appropriate regular cleaning regime.

Generally a mechanical scrubber fitted with appropriate brushes and clean water rinsing, incorporating wet vacuum, will be most effective (using up to a maximum water temperature of 50°C for epoxy systems). The use of the traditional mop and bucket technique is not appropriate.

Heavily trafficked areas need to be cleaned more frequently. Only use cleaning liquids, such as neutral or low alkali detergents, which are recommended for use with resin flooring and ensure that the correct dilution is used. Beware of cleaning liquids/polishes that may leave an oily or otherwise slippery residue.

NOTE: *Phosphoric acid based cleaners can damage epoxy resin based materials and hypochlorite based materials can cause bleaching. Undiluted cleaning chemicals can be very aggressive and can stain and even damage some resin flooring.*

In food preparation areas and other high hygiene areas, pressure washing with a bactericide at 60°C to 80°C or steam cleaning should be used (for floors suitable for steam cleaning, a 9mm thickness of ARDEX R 80 P Heavy Duty Polyurethane Screed should be specified).

Any spillages of chemicals, particularly corrosive chemicals, should be cleaned off the surface as soon as possible to minimise the risk of damage or discolouration to the floor. Drip trays should be used if necessary. If spillages are allowed to dry, this results in higher concentrations of the materials which may lead to discolouration or even early failure; dried deposits of mineral based cleaners can be extremely difficult to remove.

Any mechanical damage to the floor surface should be repaired as soon as possible to minimise the risk of damage spreading and the possibility of liquids penetrating along the bond line.

Thin coatings may need to be overcoated periodically to maintain performance, particularly in high traffic areas.

NOTE: The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.