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PRODUCT DATA SHEET

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# PREPARATION AND PRIMING FOR ARDEX INDUSTRIAL FLOORING PRODUCTS

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The products covered by this leaflet are

**ARDEX P 51 Primer and Bonding Agent**

**ARDEX R 2 E Solvent Free General Purpose Primer**

**ARDEX R 3 E Moisture Tolerant Epoxy Primer**

**ARDEX R 5 E Fast Cure Epoxy Primer**

**ARDEX R 6 E Oil Tolerant Primer**

**ARDEX R 8 P Polyurethane Tack Coat**

**ARDEX DGR Degreaser**

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 cement based products such as ARDEX K 80 or ARDEX SD-T B.

### GENERAL APPLICATION INSTRUCTIONS

Agitate container well before use. Where applicable, dilute before use. 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-TB/ARDEX K 80 Industrial Floor System:*

For general priming of concrete prior to applying ARDEX SD-T B/ARDEX K 80 Industrial Floor System, use 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.

### 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, seek medical advice immediately.

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

# ARDEX R 2 E

## General Purpose Epoxy Primer

ARDEX R 2 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. Also may be used when blinded with ARDEX Fine Aggregate and used as a primer prior to applying thick applications of the ARDEX SD-T B/ARDEX K 80 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 seal the surface and achieve the desired bonding efficiency.

### PRECAUTIONS

Can be irritating to the eyes and skin, and may cause sensitisation by contact. Harmful if swallowed.

During mixing and application 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 a suitable barrier cream.

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 3 E

## Moisture Tolerant Epoxy Primer

ARDEX R 3 E Moisture Tolerant Epoxy Primer is a two component solvent free epoxy resin for use on concrete and cementitious surfaces that have damp surfaces (eg from water spillages or rain) prior to installing ARDEX polyurethane screeds and self-smoothing epoxy floor coatings. Also ideal for use with ARDEX SD-T B/ARDEX K 80 Industrial Floor System. Blind with ARDEX Fine Aggregate and use as a primer prior to applying thick applications of the ARDEX SD-T B/ARDEX K 80 Industrial Floor System, or other appropriate ARDEX cement-based products.

**CAUTION:** Do not use ARDEX R 3 E Moisture Tolerant Primer in situations where use of an ARDEX DPM is indicated.

### PRECAUTIONS

Can be irritating to the eyes and skin, and may cause sensitisation by contact. Harmful if swallowed.

During mixing and application 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 a suitable barrier cream.

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 5 E

## Fast Cure Epoxy Primer

ARDEX R 5 E Fast Cure Epoxy Primer is a two component solvent free epoxy resin for use on sound substrates where a faster cure is required, prior to installation of ARDEX polyurethane screeds and self-smoothing epoxy floor coatings. Also may be used when blinded with ARDEX Fine Aggregate and use as a primer prior to applying thick applications of the ARDEX SD-T B/ARDEX K 80 Industrial Floor System, or other appropriate ARDEX cement-based products.

### PRECAUTIONS

Can be irritating to the eyes and skin, and may cause sensitisation by contact. Harmful if swallowed.

During mixing and application 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 a suitable barrier cream.

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 6 E

## *Oil Tolerant Epoxy Primer*

ARDEX R6 E Oil Tolerant Epoxy Primer is a two component solvent free epoxy resin for use on oil contaminated concrete or cementitious substrates prior to installing 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 B/ARDEX K 80 Industrial Floor System, or other appropriate ARDEX cement-based products.

ARDEX R6 E Oil Tolerant Primer may be used on surfaces which are contaminated with oily substances when the following application method is followed. For applications on new concrete or where the relative humidity (RH) of the substrate is in excess of 75%, ARDEX DPM should be used after application of the ARDEX R6 E application in accordance with this data sheet.

If subsequent toppings require a mechanical key, ARDEX R6 E may be seeded with ARDEX Fine Aggregate immediately after application.

### **APPLICATION**

Mechanically prepare the surface down to sound, solid concrete, then apply ARDEX DGR in accordance with the data sheet. ARDEX R6 E must be applied directly after the ARDEX DGR, whilst the surface is still damp, providing any standing water has been removed.

### **PRECAUTIONS**

Can be irritating to the eyes and skin, and may cause sensitisation by contact. Harmful in contact with the skin and if swallowed. During mixing and application 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 a suitable barrier cream.

Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. 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.

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# ARDEX R 8 P

## *Polyurethane Tack Coat*

ARDEX R8 P Polyurethane Tack Coat is a two component 'tack' coat specifically formulated for use with ARDEX R10 P Coving and Wall Render. ARDEX R8 P Polyurethane Tack Coat provides excellent adhesion and is suitable for use on concrete, brick and render and blockwork, etc. Where surfaces are very porous, the first coat of ARDEX R8 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**

ARDEX R8 P is designed to develop tack to assist in the application of ARDEX R10 P particularly on vertical surfaces. Time should be allowed for sufficient tack to develop prior to applying ARDEX R10 P.

### **PRECAUTIONS**

During mixing and application 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 a suitable barrier cream.

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.

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# ARDEX DGR

## *Degreaser*

This product is not a primer, but 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. Ideal for use in conjunction with the application of ARDEX R6 E Oil Tolerant Primer. 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.

### **PRECAUTIONS**

Keep away from sources of ignition – no smoking. Avoid inhalation of solvent vapours.

Use only in well ventilated areas. Contact with the skin must be avoided by the use of gloves, barrier creams, etc.

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

## SURFACE PREPARATION

### (Applies to all ARDEX primers)

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 followed by the application of ARDEX R 6 E Oily Surface Primer.

For applications on new concrete or where the relative humidity (RH) of the substrate is in excess of 75%, an ARDEX DPM should be used. If the substrate is particularly smooth, or the subsequent topping requires a mechanical key, the surface of the epoxy primer applied onto the DPM should be seeded with ARDEX Fine Aggregate immediately after application. DPMs should NOT be seeded directly as this may impair their performance.

Diamond grinders, along with scabbling machines, can also be used to remove high spots from the surface; some scabbling machines can remove over 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, which recommends a rebound hammer strength of 25 N/mm<sup>2</sup> or a minimum surface tensile strength of 1.5 N/mm<sup>2</sup>. 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, laid to falls as necessary and not contain a water repellent admixture.

Minor repairs to cracks or holes should be carried out using the 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.

## MIXING & APPLICATION

### (Applies to all ARDEX two-component primers)

**MIXING:** The individual components of all ARDEX two component primers 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, free of pinholes and dry spots is achieved and to compensate for differences in surface porosity. If subsequent toppings require a mechanical key, primers may be blinded with ARDEX Fine Aggregate immediately after application.

Please check individual product labelling before use as some products may have additional mixing or application instructions.

## PRIMERS PROPERTY TABLE

Name	Use	Type	Working Time (mins)	Overcoat Time (hours)	Max Overcoat Time (hours)	Pack Sizes (kg)	Coverage (m <sup>2</sup> /kg)
<b>Ardex P 51</b>	For cement based products	Single component dispersion, dilutable	n/a	5	72	1 5 25	7 to 20 depending on dilution
<b>Ardex R 2 E</b>	General purpose	2 Part Epoxy	20	8	24	6 25	5
<b>Ardex R 3 E</b>	Moisture Tolerant	2 Part Epoxy	20	8	24	6 25	4
<b>Ardex R 5 E</b>	Fast Cure	2 Part Epoxy	15	4	12	6	4
<b>Ardex R 6 E</b>	Oil Tolerant	2 Part Epoxy	20	8	24	6 25	4
<b>Ardex R 8 P</b>	Tack Coat	2 Part Polyurethane	20	2	8	2.4	4

**NB:** All properties are at 20°C. Colder temperatures will increase working and overcoat times, warmer temperatures will reduce them. The allowable surface temperature range for application is 10 to 30°C, optimum application properties are between 15 and 25°C.

**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.