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PRODUCT DATA SHEET

ARDEX K 80



ARDEX SD-T BASE MIX

Rapid Drying Industrial Topping / Wearing Surface

Features

COST EFFECTIVE - base mix and topping system available

STRONG - withstands heavy wheeled traffic and has excellent abrasion resistance

DURABLE - Produces wearing surfaces in commercial and industrial areas

USER FRIENDLY - The ARDEX K 80/SD-T B System can be installed from 5mm - 50mm over existing concrete surfaces

VERSATILE - can receive a range of surface finishes including suitable resin coatings, tiles and natural stone

Rapidry Formula



What is the Rapidry Formula?

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



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ARDEX K 80/SD-T B BASE MIX

Rapid Drying Industrial Topping/Wearing Surface

DESCRIPTION

ARDEX K 80/SD-T B Industrial Floor System from ARDEX is a combination of ARDEX K 80 and ARDEX SD-T B base mix. ARDEX K 80 is a specially formulated cement-based compound for resurfacing and levelling existing concrete floors to give a hard, smooth, flat, wearing surface or as a base for suitable paint and resin coatings. ARDEX SD-T B base mix is designed to pre-level concrete surfaces prior to applying ARDEX K 80.

ARDEX K 80 Industrial Floor System provides the ideal combination of toughness, low maintenance, ease of application and high durability coupled with the incorporation of the unique ARDEX 'Rapidry Formula'. Due to the 'Rapidry Formula' chemically binding the mixed water, the ARDEX K 80 literally dries within itself at the same time as it rapidly develops strength.

When mixed with water, ARDEX K 80 produces a fluid self-levelling mortar which can be applied by trowel or pump as a floor finish from 5mm-10mm. Where thick applications are required the cost effective ARDEX SD-T B base mix can be initially applied from 10mm-50mm depth to level the concrete base. The 'Rapidry Formula' technology of the ARDEX SD-T B base mix means that within only hours of its application a minimum 5mm thickness of ARDEX K 80 can be applied.

ARDEX K 80 Industrial Floor System is virtually tension free and provides a very high strength surface which has enough resiliency to accept heavy wheeled traffic, such as that found in industrial factories, workshops and warehouses, etc. Independent testing at Aston University has confirmed the excellent inherent abrasion resistance of ARDEX K 80/SD-T B Industrial Floor System ensuring its suitability for a wide range of applications.

SUBSTRATE PREPARATION

The concrete surface 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. The surface strength of the concrete must be sufficient to support the ARDEX K 80. BS8204-3 recommends a minimum surface tensile strength of 0.8N/mm² for concrete bases to receive wearing or levelling screeds.

NOTE: For heavy duty locations or where a subsequent resin coating may be applied, the minimum surface tensile strength should be 1.5N/mm².

Use ARDEX DGR degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contact our Technical Services Department for further information. Concrete surfaces must be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to priming. All surfaces need priming. It is recommended to prime with a sand blinded application of ARDEX R 3 E Solvent Free Epoxy Primer or ARDEX R 5 E Rapid Curing Solvent Free Epoxy Primer in accordance with the technical data sheet. The sand used to create a blinded/aggregate keyed surface should be ARDEX Fine Aggregate, approximately 1 to 1.5mm in size. Overwatered, or otherwise weak concrete surfaces must be suitably prepared down to sound, solid concrete by mechanical methods. Direct to earth concrete sub-floors must be dry and have an effective damp proof membrane such as ARDEX DPM or ARDEX DPM 1 C.

When applying ARDEX K 80 on top of ARDEX SD-T B base mix, ensure any contamination is removed prior to priming with ARDEX P 51 primer mixed 1:2 with water using a broom in accordance with the Priming and Preparation data sheet. The surface of the ARDEX SD-T B base mix must be thoroughly primed and the primer allowed to dry prior to applying the ARDEX K 80.

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. ARDEX K 80 and ARDEX SD-T B should not be used in external or areas subject to wetting.

MIXING ARDEX K 80

To the required amount of clean water in a clean mixing container add the powder whilst mixing thoroughly using an ARDEX mixing paddle with a 10mm chuck variable speed (600 -1,000 rpm) electric drill, until a smooth lump free mortar is produced. For each 25kg bag of ARDEX K 80, add 4³/₄ to 5¹/₄ litres of clean water. Use the minimum amount of water for thick applications or cold conditions. Do not use more than 5 litres per bag.

MIXING ARDEX SD-T B Base Mix

As above except 3¹/₂ to 3³/₄ litres of mixing water is used. Do not exceed 3³/₄ litres of water per 25kg bag of ARDEX SD-T B base mix.

ARDEX K 80/SD-T B BASE MIX

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APPLICATION OF ARDEX K 80 AND ARDEX SD-T B base mix

Pour the mixed ARDEX K 80 compound onto the prepared sub-floor. The mixed mortar will flow out and self-level during the first 10 minutes of its 30 minutes working time at 20°C. Use an ARDEX gauging tool with height adjustment for gauging thicker applications. Use an ARDEX long handled smoothing trowel or spiked roller for finishing off depending upon the finish required. Use a pin rake with height adjustment for thicker applications. A spiked roller can be used for finishing off depending on the finish required. Minimum recommended application temperature 10°C. Where large sub-floors require levelling and/or thick applications are required it is recommended to pump ARDEX K 80/SD-T B Industrial Floor System.

For advice on pumping, including recommended flow values, consult our Technical Services Department.

THICKNESS

ARDEX SD-T B base mix can be applied at thicknesses down to 10mm. However, to benefit from its levelling properties ARDEX SD-T B base mix should be applied at least 15mm thick. When applying ARDEX SD-T B base mix at thicknesses of over 20mm, larger aggregate may be incorporated. Contact our Technical Services Department for further information. ARDEX K 80 should be applied at thicknesses between 5 and 10mm.

WEAR SURFACES

The surface of the ARDEX K 80 should be protected from spillages such as oil, salts, water, etc., by applying a suitable concrete sealer or resin coating. Suitable sealers will also help ease maintenance and help to maintain the aesthetic appearance.

NOTE: As the performance of resin flooring systems vary considerably, if compatibility is unknown, a trial application is recommended to assess the suitability and compatibility of the selected coating with ARDEX K 80 before work commences. Always contact and rely upon the coating manufacturer for specific application instructions and product guidelines.

Where good drying conditions prevail (i.e. 20°C and a relative humidity not exceeding 50%), coatings can be applied after 24 hours, after application of a 10mm thick layer of ARDEX K 80. Lower temperatures and/or higher humidity conditions or thicker layers will extend this time, higher temperatures and lower

SPECIFIC CONDITIONS AND ABRASION RESISTANCE

Independent tests carried out by Aston University have shown that ARDEX K 80 has excellent abrasion resistance, having a rating of at least AR1. This is classified by BS 8204 as being suitable for very high abrasion and heavy wheeled traffic, such as found in heavy duty industrial workshops, warehouses, etc.

ARDEX K 80 Industrial Floor System is intended for forklift traffic and similar use. Excessive service use, such as dragging of heavy metal equipment or loaded pallet trucks with protruding nails can cause gouging and surface damage.

COVERAGE

Approximately 1.65kg ARDEX K 80 powder/m²/mm, e.g. one 25kg bag will cover approximately 3.0m² at 5mm thick.

Approximately 1.87kg ARDEX SD-T B base mix powder/m²/mm, e.g. one bag will cover approximately 1.3m² at 10mm thickness.

NOTE: The coverage figure is based on a flat level surface, additional material should be allowed for where the surface is rough or uneven.

PACKAGING

ARDEX K 80 and ARDEX SD-T B base mix are packed in paper sacks incorporating a polyethylene liner - net weight 25kg.

STORAGE AND SHELF LIFE

ARDEX K 80 and ARDEX SD-T B base mix must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of these products is 12 months from the date shown on the packaging.

PRECAUTIONS

ARDEX K 80 and ARDEX SD-T B base mix are 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.

NOTE: For the latest technical or health and safety data on this product, consult the current technical or health and safety datasheet online at www.ardex.co.uk

ARDEX K 80/SD-T B BASE MIX

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TECHNICAL DATA

ARDEX K 80

Working time at 20°C approximately 30 minutes

Compressive Strength

1 day	14 N/mm ²
7 days	20 N/mm ²
28 days	32 N/mm ²

Flexural Strength in accordance with EN 196

1 day	3.8 N/mm ²
7 days	5.8 N/mm ²
28 days	9.0 N/mm ²

Ball Pressure Hardness

1 day	60 N/mm ²
7 days	65 N/mm ²
28 days	90 N/mm ²

Abrasion Resistance

The abrasion resistance of ARDEX K 80, when measured in accordance with BS 8204, was rated as at least AR1.

Resistance to chair castors Yes

Suitable for underfloor heating Yes

Bulk density approx. 1.3kg/litre

Weight of fresh mortar approx. 2.0kg/litre

Working time at 20°C approx. 1/2 hour

Walkability at 20°C after approx. 2 hours

Ready to receive floorings and coatings under good conditions at 20°C:

Application thickness	Time
up to 10mm	after 1 day

NOTE: It is important that, where application thickness varies, the time allowed for curing and drying allows for the maximum thickness of application.

ARDEX SD-TB base mix

Working time at 20°C approximately 15 minutes

Flow life at 20°C approximately 10 minutes

Initial Set (Vicat) approximately 1 1/2 hours

Final Set (Vicat) approximately 2 hours

Compressive Strength

(EN 196) 28 days approximately 30 N/mm²

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.

