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JANUARY 2024
(SUPERESEDES January 2023)
PRODUCT DATA SHEET

ARDEX K 80

Rapid Drying Industrial Topping / Wearing Surface

GEV-EMICODE® EC1 very low emission

Features

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-TB 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, can be hand mixed or pump applied.

Rapidry Formula

RAPIDRY FORMULA

What is the Rapidry Formula?

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

bsi ISO 9001 Quality Management Systems CERTIFIED — Reg No. FM 01207
ISO 14001 Environmental Management CERTIFIED — EMS 565427
ISO 45001 Occupational Health and Safety Management CERTIFIED — OHS 628374

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ARDEX K 80

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DESCRIPTION

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, see separate data sheet, 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 6mm 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/mm^2 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/mm^2.

Use a suitable degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contact our Technical Support Team 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 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 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 4.75 to 5 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.

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APPLICATION OF ARDEX K 80

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 Pin Leveller with height adjustment for thicker applications. A spiked roller can be used for finishing off depending on the finish required. Minimum recommended 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, see separate ARDEX SD-TB data sheet.

NOTE: ARDEX K80/SDT-B may be pumped using suitable floor screed mixer pump units. For advice on pumping, including suitable equipment and techniques, please contact our Technical Support Team.

THICKNESS

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/m^2/mm,
e.g. one 25kg bag will cover approximately 3.0m^2 at 5mm thick.

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 is packed in paper sacks incorporating a polyethylene line - net weight 25kg.

STORAGE AND SHELF LIFE

ARDEX K 80 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 is 12 months from the date shown on the packaging.

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

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TECHNICAL DATA

ARDEX K 80

Working time at 20°C	approximately 30 minutes

Compressive Strength 1

day	14 N/mm²
7 days	20 N/mm²
28 days	32 N/mm²

Flexural Strength in accordance with EN 196

1 day	3.8 N/mm²
7 days	5.8 N/mm²
28 days	9.0 N/mm²

Ball Pressure Hardness 1

day	60 N/mm²
7 days	65 N/mm²
28 days	90 N/mm²

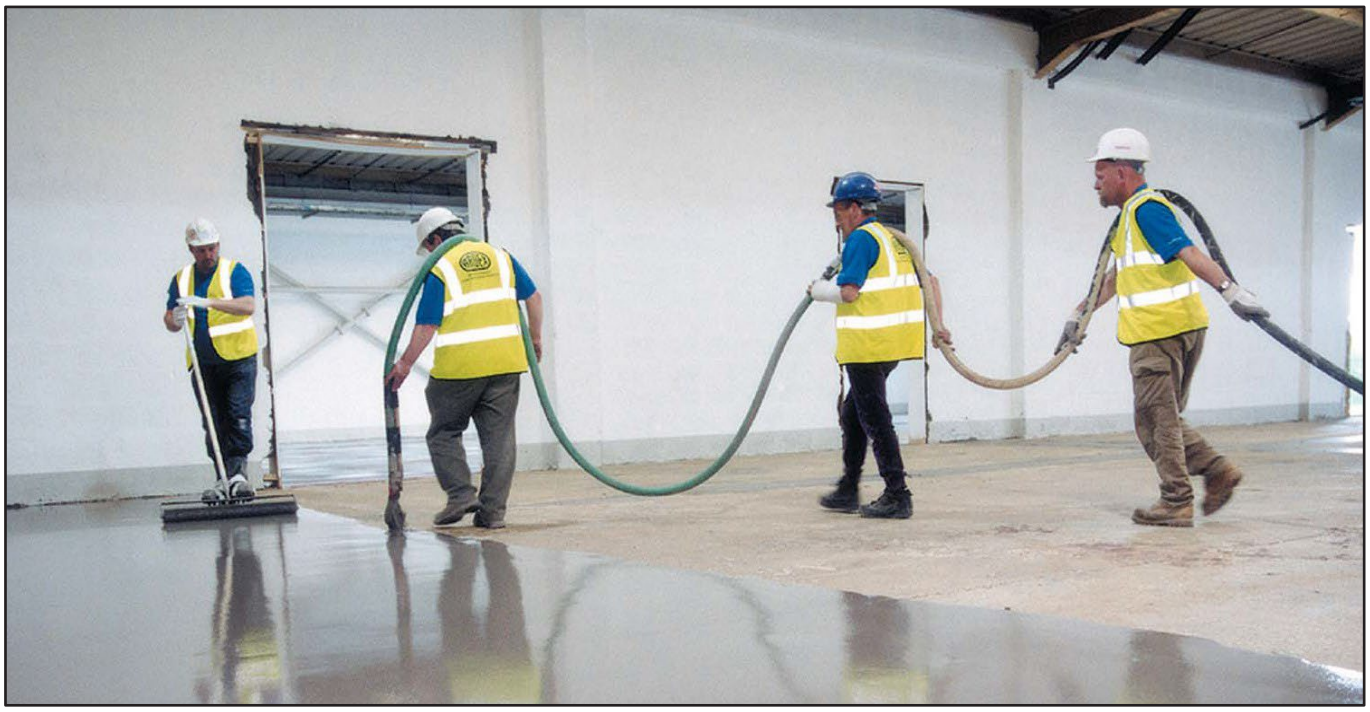
Abrasion Resistance

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 after
Walkability at 20°C	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.

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.