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PRODUCT DATA SHEET

ARDEX PC-T 4

Polished Concrete Topping

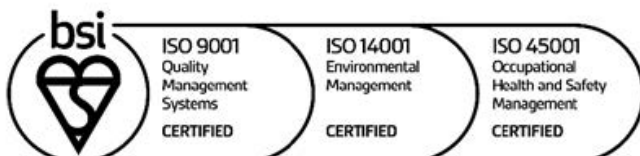
Features

- Walkable after 2 to 3 hours
- Polish in as little as 24 hours
- Install from 10mm to 50mm neat
- 30mm to 130 mm (incorporating aggregate)
- Abrasion resistant to class AR1
- Pourable and Pumpable
- Available in Concrete Grey
- Interior use

RAPIDRY



Binds the mix water within the mortar, speeding drying and hardening times irrespective of application thickness



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OHS 628374

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ARDEX PC-T 4

Polished Concrete Topping

DESCRIPTION

ARDEX PC-T 4 is a rapid-drying, cement based compound for creating polished concrete floors. It is walkable in 2-3 hours and can be polished in as little as 24 hours.

USE

For internal use only. ARDEX PC-T 4 can be used in retail stores, schools, airports and all areas where a fast track, polished concrete surface is desired.

ARDEX PC-T 4 can be installed from 10mm up to 50mm neat over large areas, and up to 130mm with the addition of a suitable graded aggregate. To benefit from its levelling properties ARDEX PC-T 4 should be applied at least 15mm thick. When applying ARDEX PC-T 4 at thicknesses of over 30mm, larger aggregate may be incorporated. Contact the ARDEX Technical Services Department for more information.

SUBSTRATE PREPARATION

The substrate must be clean, hard, sound and free of dust and other barrier materials such as paint, curing agents, laitence, adhesive residues etc, that will inhibit adhesion to the substrate. The surface strength of the concrete must be sufficient to support the ARDEX PC-T 4. BS 8204-3 recommends a minimum surface tensile strength of 0.8N/mm² for concrete bases to receive wearing or levelling screeds.

Use ARDEX DGR degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. All surfaces must be mechanically prepared, either by scabbling, grinding, contained shot-blasting equipment or similar, and be vacuumed clean prior to priming.

Overwatered, frost damaged or otherwise weak concrete surfaces must be suitably prepared down to sound, solid concrete by mechanical methods. Acid etching, adhesive removers and solvents are not acceptable means for cleaning the substrate. Sanding equipment is not an effective method to remove curing and sealing compounds. Direct to earth concrete subfloors must be dry and have an effective damp proof membrane such as ARDEX DPM 1 C. Test for moisture using the relative humidity method in accordance with BS8203-1 and BS8204-1.

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. Before proceeding with the installation, all non-structural dormant cracks must be prefilled with a fully rigid resin such as ARDEX PSRS or ARDEX EP 2000. Please note that the repair material must be sand broadcast to refusal while still fresh and allowed to cure fully prior to removing all excess sand. The filling of dormant cracks is recommended to help prevent the cracks from reflecting through the topping. However, should movement occur, cracks will reappear.

ARDEX cannot be held responsible for problems that arise through joints, existing cracks or new cracks that may develop after the system has been installed.

PRIMING

All surfaces require priming with a sand blinded application of ARDEX R 3 E, or for fast track installations, ARDEX R 5 E, Solvent Free Epoxy Primer. Apply the primer as a complete film coating to the entire area and broadcast with ARDEX Fine Aggregate to refusal. This will require approximately 1.5kg/m² of sand.

Where ARDEX PC-T 4 is to be installed as a thicker aggregated layer to build up to within the final finished thickness, prime as above. When dry and cured, prime the top of the aggregated layer prior to applying a neat layer of ARDEX PC-T 4.

For further information and application guidelines please consult the relevant product datasheet.

MIXING

Mix two bags at a time, with up to a maximum of 3.75 litres of clean water per 25kg bag. Pour the water in the mixing bucket first, and then add each bag of ARDEX PC-T 4 while mixing with an ARDEX Cage Whisk, using a heavy-duty drill (min. 650 rpm). Mix thoroughly for approximately 2 to 3 minutes to obtain a lump-free mix.

Do not overwater. Yellowish foam during mixing, or settling of the sand aggregate during installation indicates overwatering.

PUMPING

Where large subfloors require levelling and/or thick applications are required, pumping is recommended. Pump ARDEX PC-T 4 with aggregate to fill and level the area up to within 15-20mm of the finished floor level. The topping can then be poured in or pumped as a neat ARDEX PC-T 4 mix. Please contact the ARDEX Technical Service Department for advice.

APPLICATION

The minimum recommended application temperature is 10°C. Pour the mixed ARDEX PC-T 4 compound onto the prepared subfloor. The mixed mortar will flow during the first 10 minutes of its 30 minutes working time at 20°C. Use a pin rake or gauging tool for levels, and a spiked roller or blade for finishing.

For thicker applications, mix ARDEX PC-T 4 with washed and well-graded 3mm to 10mm gravel. Please note that the aggregate size must not exceed 1/3 the depth of the pour. Mix the ARDEX PC-T 4 with water first, and then add 1 part aggregate by volume, mixing until the aggregate is completely coated. Do not use screeding sand or soft building sand. If the aggregate is wet, reduce the amount of mixing water to avoid overwatering. The addition of aggregate will diminish the workability of the product and may make it necessary to install a neat coat to obtain a smooth surface.

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Allow the initial application to dry for 12-16 hours, and then prime and sand broadcast, allowing the primer to dry before removing all excess sand and installing a neat coat of ARDEX PC-T 4.

As ARDEX PC-T 4 uses several naturally occurring and mined raw materials, shade and/or colour variations are to be expected across very large pours. Consecutive batches must be used, or blend non-consecutive batches to minimise shading and colour variation.

APPLICATIONS OVER UNDERFLOOR HEATING

ARDEX PC-T 4 can be installed over concrete that contains fully commissioned under floor heating, but should not be used to encapsulate any heating system directly. If the concrete substrate has under floor heating, it should be turned off and the concrete/screed allowed to cool before installing ARDEX PC-T 4.

The underfloor heating system must have been commissioned in accordance with the manufacturer's instructions and in accordance with BS 8204 Part 1, prior to the application of ARDEX PC-T 4.

POLISHING AND FINISHING

ARDEX PC-T 4 wear surfaces are intended to replicate traditional polished concrete and as such will not be perfectly homogeneous in appearance.

The physical act of spreading and smoothing, along with the polishing process, will result in optical variations in the appearance of the floor even though it is very flat. Variations in the overall finished appearance are an intended effect and should be expected.

For instructions regarding the polishing, treatment, sealing and maintenance of your polished concrete floor, please refer to the Installation and Maintenance Guidance document.

DRYING AND HARDENING

The drying time is dependent on site temperature and humidity conditions, as well as the installation thickness. Low substrate temperatures and/or high ambient humidity will extend the drying time needed before processing the surface. Adequate ventilation and heat will aid drying. Do not directly force dry the surface or use surface heaters.

WEAR SURFACE NOTES

The finished polished surface of the ARDEX PC-T 4 should be protected, to minimize the risk of staining, from spillages such as oil, salts, water, etc., by applying a suitable sealer and/or stain protection system.

ARDEX PC-T 4 wear surfaces are intended for foot traffic, rubber-wheeled forklift traffic and similar uses. Excessive service conditions, such as steel or hard plastic-wheeled traffic or dragging heavy metal equipment over the floor, will cause gouging and indentations.

As with any decorative floor covering (wood, soft natural stone, marble, etc.), allowances must be made for scratches or abrasion that occur due to moving or sliding furniture or fixtures over the surface. The fitting of soft felt pads is recommended for furniture/fixtures that are moved frequently. Keeping the floor surface clean and free of dirt or other contaminants will also help to minimise scratching and scuffing of the finished surface.

COVERAGE

Approximately 1.87kg ARDEX PC-T 4 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.

STORAGE AND SHELF LIFE

ARDEX PC-T 4 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 the product is 12 months from the date shown on the packaging.

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

TECHNICAL DATA

Begin Processing:	24-72 hours
Colour:	Grey
Working time at 20°C	approx. 15 minutes
Walkability at 20°C	approx. 2-3 hours
Compressive Strength after 28 days	*30.0 N/mm ²
Tensile Bending Strength after 28 days	*7.0 N/mm ²
Abrasion Resistance	AR1 using 3.75 litres of water (*based on AUK QC data)

We assume the warranty for the perfect quality of our products. Our handling recommendations are based on trials and practical experience; they can, however, only be regarded as general advice without a quality warranty, as we have not influence on work site conditions and the execution of the work.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.

TECHNICAL ADVICE HELPLINE
01440 714939
ARDEX online
www.ardex.co.uk