



ARDEX R 90 P

Rake and Trowel Grade Heavy Duty Polyurethane Screed

Easily applied by rake and trowel

Hard wearing - extremely durable and abrasion resistant with low maintenance costs

Facilitates rapid application

Resistant to a wide range of chemicals and liquids

Independently tested - suitable for use in food and drinks production environments

Seamless - easily cleaned to maintain high standards of hygiene

Resistant to thermal shock - at 9mm thick can withstand steam cleaning regimes

HACCP Approved

Available in a range of colours



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DESCRIPTION

Specialist applied, polyurethane resin floor finish, combining outstanding wearing properties with high chemical resistance and decorative properties.

Ideally suited to aggressive areas where a seamless, joint free finish is required and maximum cleanliness is essential. Food processing and storage, abattoir's, drinks production, dairies and general heavy-duty plant and traffic areas are just some of the environments that can benefit from this slip resistant system.

ARDEX R 90 P has been formulated to give an easily worked system that can be applied quickly and easily by using a pin rake, only requiring finishing with a trowel to give the required finish.

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 90 P. Over watered 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. To ensure maximum bond, grooves must be cut into the perimeter of the subfloor and criss-cross into the areas to be coated, typically 8mm deep by 8mm wide. These should be inset approx. 100mm from and running parallel with the walls and adjacent to doorways and plinths etc., including any finishing edges and day joints. The grooves must have clean, square edges and the product laid into the full depth of the groove forming a perimeter anchorage. Grooves should surround areas not exceeding 20m².

Steel Plates

Steel decking must be clean, sound and properly supported to prevent flexing. Deck plate of less than 4mm thick is not recommended. Surfaces should be shot blasted to

SA2.5 and primed using ARDEX R 3 E Solvent Free Epoxy Primer.

PRIMING

All appropriate substrates to receive ARDEX R 90 P must first be primed with ARDEX R 3 E. One or more coats of primer may be required depending upon the condition and porosity of the concrete substrate. The final coat of ARDEX R 3 E must be seeded with ARDEX Fine Aggregate to provide a mechanical key.

MIXING

Part A and Part B Resin Components of ARDEX R 90 P must first be mixed together for 5 second, using forced action, in a suitably sized mixing vessel.

The pigment sachet and Part C, the powder component should then be introduced into the mixed resin and mixed together for a further 1 minute, then add in the Part D to mix for another 1 minute to achieve a fully homogeneous mortar. One or more sets may be mixed at the same time to maintain a quick rate of installation.

APPLICATION

The mixed material should be applied to the prepared and primed substrate without delay using a pin rake to achieve the desired thickness and closed with a steel trowel.

NOTE: If a smoother texture is required, as soon as the product has been laid and as work progresses, the surface should be gently rolled with a short-piled roller to provide an even surface appearance. Do not over roll the surface, as this will reduce the texture of the surface finish. Do not re-roll later.

The work area should be protected during the installation process and during the initial curing time to ensure that no airborne debris can contaminate the surface of the wet resin as this will lead to unwanted blemishes in the hardened, cured surface.

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.

LIMITATIONS

ARDEX R 90 P should only be applied at temperatures

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above 5°C and where the atmospheric relative humidity (RH) is 90% or below. Floors should have an RH of 75% or less.

For floors with an RH of more than 75%, the entire floor area should be treated with ARDEX DPM Surface Damp Proof Membrane applied and seeded with ARDEX Fine Aggregate, in accordance with the current product data sheet, in place of ARDEX R 3 E.

The substrate should have a surface tensile strength of at least 1.5 N/mm².

ARDEX R 90 P and primer/ DPM may be applied to substrates of a lower strength, but long-term performance may be impaired. Once the mixed material has exceeded its pot life, the viscosity and the characteristics of the product will change, and any unused product should be discarded at this time.

TOOL CLEANING

ARDEX R 90 P can be removed from tools and equipment immediately after use with thinner. Any hardened material will need to be removed mechanically.

TECHNICAL DATA

The values shown are typical of results obtained in the laboratory at 20°C.

Actual performance values obtained on site may vary from those quoted.

Working Life	15 minutes
Light Traffic	1 day
Full Traffic	5 days
Full Chemical Cure	7 days
Bond Strength	> 1.5 N/mm ²
Compressive Strength	> 50 N/mm ²
Flexural Strength	15 N/mm ²
Tensile Strength	25 N/mm ²
Abrasion Resistance (Taber - 1000 cycles)	5 mg weight lost
Shore Hardness (D)	80 - 85

CHEMICAL RESISTANCE

ARDEX R 90 P is resistant to a wide range of liquids and chemicals, for specific information please refer to the ARDEX Technical Services Department.

MAINTENANCE

Good housekeeping and regular cleaning is essential to maintain the performance of ARDEX R 90 P.

COVERARGE

A 32kg pack of ARDEX R 90 P will cover approx. 2.1m² when applied at a thickness of 5mm.

NOTE: These figures are theoretical, due to wastage and the variety and nature of substrates practical coverage figures may be reduced.

STORAGE AND SHELF LIFE

ARDEX R 90 P has a shelf life of not less than 6 months if kept in a dry store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

PRECAUTIONS

ARDEX R 90 P should not come into contact with the skin and eyes or to be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Wear suitable gloves, goggles and other protective clothing. The use of barrier creams can provide additional skin protection. When working in confined areas suitable respiratory equipment must be used. In case of contact with skin, rinse with plenty of clean water then wash with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water, and then seek medical attention without delay. If swallowed, seek medical attention straight away, do not induce vomiting.

The Safety Datasheet (SDS) is available upon request and online at www.ardex-quickseal.com.

DISPOSAL/SPILLAGE

Spillage of any of the component products should be absorbed onto sand or other inert material and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations. For further information, please refer to the relevant health and safety data sheet.

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DISCLAIMER

The technical datasheets are based on the latest information and given in good faith and represent the best of our knowledge and experience at the time of printing. They are primarily offered for user's consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products. It is also the responsibility of the user to ensure that the products are used and handled correctly and in accordance with any applicable standards, the product instructions and recommendations and only for the uses they are intended. As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program.

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Oct 2023 T