



ARDEX R 70 P

Medium Duty Polyurethane Screed

- Hard wearing - extremely durable and abrasion resistant with low maintenance costs
- Resistant to a wide range of chemicals and liquids
- Seamless - easily cleaned to maintain high standards of hygiene
- Available in a range of colors
- FeRFA classification - Type 5

HIGH PERFORMANCE, POLYURETHANE RESIN FLOORING SYSTEM, SUPPLIED AS FOUR COMPONENTS IN PREMEASURED PACKS FOR EASE OF ON SITE MIXING AND USE. THE CURED SYSTEM FORMS A TOUGH, EASILY CLEANED, PIGMENTED LAYER FROM 2MM UP TO 5MM THICK.



Description

Specialist applied, polyurethane resin floor finish, combining outstanding wearing properties with high chemical resistance and pleasing decorative properties. Ideally suited in aggressive areas where a seamless, joint free finish is required and maximum cleanliness is essential. Factories and general heavy duty plant and traffic areas are just some of the environments that can benefit from the tough chemically resistant system.

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.

Remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scrubbing, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying ARDEX R70P Medium Duty Polyurethane Screed. Overwatered 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.

Standard Colours



Green



Grey



Orange



Red



Cream

Due to printing process, colours can only be approximate.



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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 sub-floor, typically 8mm deep by 8mm wide. These should be inset approximately 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 R3E Solvent Free Epoxy Primer.

Priming

All appropriate substrates to receive ARDEX R70P Medium Duty Polyurethane Screed must first be primed with ARDEX R3E Solvent Free Epoxy Primer. One or more coats of primer may be required depending upon the condition and porosity of the concrete substrate. The final coat of ARDEX R3E primer may be seeded with ARDEX Fine Aggregate to aid application.

Mixing

Part A and Part B Resin Components of ARDEX R70P Medium Duty Polyurethane Screed must first be mixed together for 1 minute, using forced action, in a suitably sized mixing vessel. The contents of Part C, the powder component and pigment sachet should then be introduced into the mixed resin and mixed together for a further 2 minutes to create one homogeneous mix. One or more packs may be mixed at the same time in order to maintain a quick rate of installation.

Installation

For flooring applications, the mixed material should be applied to the prepared and primed surface between 8 and 24 hours after priming, using a trowel to achieve the desired thickness. As soon as the product has been laid and as work progresses, the surface should be gently rolled with a spiked roller in order to provide an even surface appearance. 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 any way, 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 R70P Medium Duty Polyurethane Screed should only be applied at temperatures above 10°C and where the atmospheric relative humidity (RH) is 80% or below. Floors should have a 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 or with an equivalent product applied and seeded with ARDEX Fine Aggregate, in

accordance with the current product data sheet, in place of ARDEX R3E Solvent Free Epoxy Primer. The substrate should have a surface tensile strength of at least 1.5 N/mm². ARDEX R70P Medium Duty Polyurethane Screed 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.

Cleaning Tools

ARDEX R70P Medium Duty Polyurethane Screed can be removed from tools and equipment by using ARDEX RTC tool cleaner, immediately after use. Any hardened material will need to be removed mechanically

Colors

ARDEX R70P is available in five standard colors: green, grey, orange, red, and cream. Other colors may be available to special order, subject to quantity and technical requirements. ARDEX polyurethane floor systems are formulated to maximize the mechanical and chemical resistance properties, as a result of this, these types of systems are discolored by ultraviolet light leading to a "yellowing effect". This yellowing effect is dependent upon the amount of UV exposure, both in terms of intensity and time, and is more noticeable with lighter colors.

Chemical Resistance

ARDEX R70P Medium Duty Polyurethane Screed is resistant to a wide range of liquids and chemicals, for specific information please refer to the ARDEX Technical Services Department.

Coverage

A 20kg pack of ARDEX R70P Medium Duty Polyurethane Screed will cover approximately 2.5m² when applied at a thickness of 4mm. NOTE: These figures are theoretical, due to wastage and the variety and nature of substrates practical coverage rates may be reduced.

Precautions

During mixing and application the following precautions should be observed: 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, if necessary, a suitable barrier cream.

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary. 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.

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Technical Data According to ARDEX Quality Standards

Working life:	15 minutes
Light traffic:	24 hours
Full traffic:	48 hours
Full chemical cure:	7 days
Bond strength:	> 1.5 N/mm ²
Compressive strength:	48 N/mm ²
Flexural strength:	20 N/mm ²
Tensile strength:	7 N/mm ²
Abrasion resistance:	Classified 'Special Duty' under BS 8204: Part 2: 2002(9)
Slip resistance:	Classified 'Satisfactory' under BS 8204: Part 2: 2002(9), wet and dry
Impact resistance:	Classified 'High Impact Resistance' under EN 13813:2002
Packaging	ARDEX R70P is packed in a three component pack consisting of parts A (resin) and B (hardener) packed in plastic bottles, part C (filler and pigment) packed in a bag.
Storage and Shelf Life	Store in dry conditions between 5° and 30°C, protect from frost and direct sunlight. Storage life not less than 6 months in the original unopened packaging..