

ARDEX R 121 PP

Solvent Free Polyurethane Self-leveling

Two-component solvent-free polyurethane selfleveling

Can withstand micro cracks of concrete substrate

Impact resistant

Chemical resistant

Available in different colors



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ARDEX R 121 PP

Solvent Free Polyurethane Self-leveling

Description:

ARDEX R 121 PP is a two-component solvent-free polyurethane self-leveling product. It is flexible to resist tiny cracks on the substrate. It is also chemical corrosion resistant. ARDEX R 121 PP is an ideal product for manufacturing and machining area, especially ideal for maintenance and renovation projects.

Surface Preparation

ARDEX R 121 PP must be applied on the surface of a solid, clean and dry substrate; the surface should have been applied primer to get the highest bond strength. When higher flatness is required, the substrate should reach the required flatness or take other leveling measures. It is suggested that the application thickness of ARDEX R 121 PP be 1 - 3mm.

Substrate special treatment (for self-leveling construction)

In order to achieve the best bonding effect, an anchoring groove can be cut on the substrate. The anchoring groove must be vertically structured, 5 mm wide, 5mm deep and about 100mm away from the wall. It should be paralleled to the wall and a surrounding area of the anchoring groove should not be more than 50 square meters. The groove should be cut near the entrance, the column base, construction boundaries and construction joints as well. Fill the groove with fully mixed R121PP PU mortar to form the annular anchoring on the substrate.

Primer

ARDEX R 7 PP elastic polyurethane primer must be applied before applying ARDEX R 121 PP. The high absorbent substrate surface absorbs too fast after coating, therefore might apply ARDEX R 7 PP several times according to the situation. Not fully penetrated and sealed substrate might cause blistering or pinhole on surface material. Available substrate types please refer the Primer guide of the manufacturer instructions.

Mixing

Mix ARDEX R 121 PP part A for about 30 seconds until uniform, add part B, using a low speed electric drill to mix thoroughly for 2 minutes until a homogeneous and uniform mix is obtained. Move the mixture to a large clean bucket and mix again for another minute until homogeneous and uniform. When the thickness of the self-leveling middle coating exceeds 1mm, some fine quartz(recommended 70-100 mesh) can be added as aggregate. Actual amount is subject to the ambient temperature, the maximum amount shall not exceed 30% of the resin material amount.

Note: ARDEX R 121 PP will produce heat after mixing, it will lose its working time if be left in the bucket.

Application

Self-leveling installation

Pour the mixed ARDEX R 121 PP to the substrate surface. According to installation thickness, use different toothed trowel to scrape to achieve the thickness. Use spike roll immediately to release the air and help leveling the surface at the same time. It is recommended to use the same ARDEX polyurethane top coating products over ARDEX R 121 PP coating, such as ARDEX R 114 PP or ARDEX R 115 PP.

Construction restrictions

Substrate temperature: $10-30^{\circ}C$ Construction should not be processed when the relative humidity is higher than 75%. If the mixed material exceeds its operating time, the viscosity and properties of the

time, the viscosity and properties of the material may change, unused material should be discarded.

Note: All ARDEX products are produced by the quality assurance procedures strictly. In the area where color balance is strict required, use the same batch of material in the same area as possible.

Cleaning of tools

Immediately wash the tools and equipment with ARDEX RTC tool cleaning agent after application. Cured material must be removed by mechanical methods.

Physical Properties

ARDEX R 121 PP	@ 23 ℃
Operating time	20 minutes
Second coating	6-24 hours
Open for walk	48 hours
Fully curing	7 days
Surface hardness	65(HS D)
Tensile strength	16MPa
Bond strength	> 2MPa
Chemical corrosion resistance ARDEX R	
121 PP can withstand a variety of chemicals,	
for more information please contact ARDEX	
Technical Services Department.	

Cleaning & Maintenance

To maintain the performance of ARDEX R 121 PP, good maintenance and cleaning are essential. For more information please refer to the introduction chapter about surface protection, preparation, cleaning and maintenance in the ARDEX industrial floor brochure.

Usage

Packaging Consumption 23kg 1.3kg /m² (1mm dry film thickness)

Note: The above data are theoretical data, the actual amount may vary due to substrate situation. Before application, it is recommended to calculate the expected amount to be used to ensure a uniform coating and proper material consumption.

Storage and Shelf Life

ARDEX R 121 PP can be kept for 12 months from date of manufacture if stored in original unopened packaging in a 5-30 °C dry environment without exposure to cold weather, direct sunlight or heat.

Packaging

Pre-weighed 23kg packaging for ARDEX R 121 PP. Part A is 18kg resin; Part B is 5kg curing agent.

Precautions

Polyurethane resin and curing agent are corrosive and may cause skin irritation when directly contact with eye and skin. Skin contact or swallowing is harmful to health. During the construction and mixing process precautions must be taken: Ensure adequate ventilation, avoid contact with eyes, nose, mouth or unprotected skin. Avoid direct contact without wearing protective gloves, use skin care product as protection if necessary.

In case of contact with eyes, rinse under running water immediately and seek medical advice. In case of contact with skin, rinse with soap and water(do not use solvent to clean). Avoid prolonged contact with skin, especially users who have allergic reaction to polyurethane materials. Wear protective gloves, goggles and masks is very necessary. Pay attention to personal hygiene, wash hands when installation is completed or interrupted. Avoid contaminating the inside of gloves when taking off. In case of accident, seek medical advice immediately. For further information please refer to the Material Safety Data Sheet (MSDS).

Waste disposal / leak

Any leakage from either part should use sand or other inert materials to absorb and transfer to a safe disposal container. Disposal of waste materials and packaging should comply with local waste disposal regulations. For more information please refer to the health and safety manual.

Regional specific recommendations, standards, codes of practice, building regulations or industry guidelines may affect specific installation recommendations.

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