

ELASTORAPID VK 260 SOFT

PURE POLYUREA WITH A MEDIUM ELASTIC MODULUS

IN COMPLIANCE WITH THE REQUIREMENTS OF THE 1504-2 EUROPEAN STANDARD:
Product for humidity control 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2

Features

- Medium elastic modulus.
- No plasticizers and VOC.
- Very high hardening speed and rapid reaching of the final mechanical characteristics.
- High resistance to hydrolysis, punching, abrasion, ageing.
- Application temperature from -5°C without condensation.
- Operating temperature from -45°C to +80°C.

Field of use

- Waterproofing reconstruction of slabs, terraced roofs, civil and industrial roofs, etc.
Applying the product on the old waterproofing made of tar paper, PVC, aluminium/polyurethane panels it is not necessary to remove the previous waterproofing.
- Protection and encapsulation of fibre cement.

Application

Support preparation

Support preparation is fundamental, thus the surface to be treated must be free of any pollutant, dry, coherent and must have a tear resistance of at least 1,5 MPa. In any case it is necessary, depending on the type of surface, to make a preparation of the flooring by sand-blasting, milling, shot peening, smoothing or sanding.

Free and stagnant water coming from the foundation, from previous washing processes or from meteorological events must be removed or dried.

On porous substrates the reactivity of the material is such that the resulting heat development may lead to the formation of through holes in the coating because of the heating of the air trapped in the surface. Therefore after application of the primer it is advisable to make sure that the surface is actually closed (saturated).

Primer

Depending on the surface to be treated the preparations are different:

- **Concrete surfaces:** carry out the shot-peening, then smooth with **RESINA 700** or **530** loaded with quartz 0,1-0,3. In case of very porous surfaces make a double smoothing. On the wet resin broadcast quartz sand to improve the adhesion.

On surfaces affected by humidity or counterthrust apply **EPOXCEMENT TIXO** or **EPOXCEMENT HB RAPIDO** until a dry surface is obtained, then apply another coat and broadcast quartz.

- *Old tar papers*: clean by water blasting. On the dry surface apply **ITALPOX 50**, **ITALPOX 51 TR** or **PRIMER 60**, and immediately broadcast quartz on the surface.
Apply at least 2,2 kg/m² of **ELASTORAPID VK 260 SOFT** as soon as possible.
- *PVC or aluminium/polyurethane panels*: apply **FLOORFIX 44** properly thinned as primer, with a consumption of 150 g/m², broadcasting quartz on the wet resin.
After 24 hours apply at least 2,2 kg/m² of **ELASTORAPID VK 260 SOFT**.

Product preparation

Two-component product, applicable with high-pressure bimixer airless spray guns, better if implemented with a programmable logic controller (PLC) for quantity and mass flow rate, equipped with a suitable mixing gun for polyureic systems (reaction within the gun).

The best results are obtained by spraying the product at a temperature of 65-75°C for component A, 75-80°C for component B, and a pressure of 180-200 bar.

The equipment must have line heaters, tanks and heated hoses.

The components of **ELASTORAPID VK 260 SOFT** must not be polluted with any chemical agent (solvents, oils, water, or anything else) because the characteristics of the product would be seriously compromised.

Tools cleaning

The hardened product can be removed from the tools by immersion in *N*-methylpyrrolidone, dimethylformamide or, less efficiently, **DILUENTE PU1**.

Technical data

Colour	Neutral or RAL Colours	-
Density <i>Component A</i> <i>Component B</i>	1,10 ± 0,05 kg/l 1,10 ± 0,05 kg/l	EN ISO 2811-1
Viscosity at 20°C <i>Component A</i> <i>Component B</i>	800 ± 150 mPa·s 1300 ± 250 mPa·s	EN ISO 2555
Mixing ratio <i>By volume and by weight</i>	1:1	-
Theoretical consumption	3,3 kg/m ²	-
Theoretical thickness	3 mm	-
Non-volatile-matter content	> 99,8 %	EN ISO 3251
Bond strength by pull-off	> 3,0 MPa	EN 1542
Adhesion on metal	> 7,0 MPa	EN 13144
Bond strength by pull-off on fibre cement	> 1,4 MPa	EN 1542
Resistance to temperature shock	> 3,3 MPa	EN 13687-5
Impact resistance	20 N·m	EN ISO 6272
Abrasion resistance (Taber)	< 35 mg	EN ISO 5470-1 Wheel H22 1000 g, 1000 cycles

Tensile strength	> 16 MPa	EN 12311-2										
Tear resistance	> 12 kN/m	EN 12310-2										
Elongation at break	> 600 %	EN 12311-2										
Shore D hardness	> 45	EN ISO 868										
Liquid water permeability	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	EN 1062-3										
Resistance to ozone	Excellent	EN 1844										
Resistance to severe chemical attack	<table border="0"> <tr> <td>Hydrocarbon mixture</td> <td>Class II</td> </tr> <tr> <td>Acetic acid 10 %</td> <td>Class II</td> </tr> <tr> <td>Sulphuric acid 20 %</td> <td>Class II</td> </tr> <tr> <td>Sodium hydroxide 20 %</td> <td>Class II</td> </tr> <tr> <td>Sodium chloride 20 %</td> <td>Class II</td> </tr> </table>	Hydrocarbon mixture	Class II	Acetic acid 10 %	Class II	Sulphuric acid 20 %	Class II	Sodium hydroxide 20 %	Class II	Sodium chloride 20 %	Class II	EN 13529
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ELASTORAPID VK 260 SOFT exposed to UV rays can show variations in colour and slight chalking, but the mechanical characteristics will not be affected.

To avoid these changes, it is necessary to protect it with an aliphatic polyurethane coating like **ITALPAINT EEP, ITALPAINT 136, ITALPAINT 67, ITALPAINT 10**.

Curing

At 22°C, 50 % R.H.	
- Touch dry	20 seconds
- Walkable	40 minutes
- Complete curing	2 hours

Storage

The product in the original sealed packaging, stored in a dry and sheltered place at a temperature comprised between +5°C and +35°C, is preserved for 12 months.

Do not store the product at temperatures lower than 6°C.

Safety

In the application of this product it is advisable to use goggles, rubber gloves and all the PPE required by the laws on the use of chemical substances.

For all the additional information consult the material safety data sheet of the product.


PERFORMACES IN COMPLIANCE WITH CERTIFICATION CE EN 1504-2

Product type 1702		DoP 103
Characteristics	Product performance	Test Method
CO ₂ permeability	$s_D > 50 \text{ m}$	EN 1062-6
Water vapour permeability	Class I	EN ISO 7783-2
Liquid water permeability	$< 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	EN ISO 1062-3
Bond strength by pull-off	$> 2,0 \text{ N/mm}^2$	EN 1542
Crack bridging	A5 (23°C) > B4.1 (23°C)	EN 1062-7
Impact resistance	Class III	EN ISO 6272-1
Temperature shock	$> 2,0 \text{ N/mm}^2$	EN 13687-5
Abrasion resistance	$< 3000 \text{ mg}$	EN ISO 5470-1
Resistance to severe chemical attack	CR4 (Class II), CR9 (Class II), CR10 (Class II), CR11 (Class II), CR12 (Class II)	EN 13529
Hazardous substances	The hardened product does not release hazardous substances	
Reaction to fire	F	EN 13501-1
Linear shrinkage	NPD	EN 12617-1
Coefficient of thermal expansion	NPD	EN 1770
Cross-cut test	NPD	EN ISO 2409
Thermal compatibility	NPD	EN 13687-1
Resistance to liquids	NPD	EN ISO 2812-1
Slip/skid resistance	NPD	EN 13036-4
Exposition to artificial atmospheric agents	NPD	EN 1062-11
Electrical resistance	NPD	EN 1081
Compressive strength	NPD	EN 12190
Compatibility on wet concrete	NPD	EN 13578

CR4: 60 % toluene, 30 % xylene, 10 % methylnaphthalene

CR9: acetic acid at 10 %

CR10: sulphuric acid at 20 %

CR11: sodium hydroxide at 20 %

CR12: sodium chloride at 20 %

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