



REFLEX M1

ONE-COMPONENT POLYURETHANE MOISTURE CURING COATING

IN COMPLIANCE WITH THE REQUIREMENTS OF THE 1504-2 EUROPEAN STANDARD:

Product for the protection against the risk of penetration 1.3, moisture control 2.2, resistivity increase 8.2

Features

- Fluid product, applicable with roller, brush, spray.
- Seamless waterproofing.
- Resistant to UV rays, abrasion, bad weather.
- Crack bridging ability.
- Excellent elasticity, even at low temperatures.
- Application temperature from +5°C to +35°C (substrate), support humidity < 4 %, R.H. between 35 and 80 %, above the dew point by at least 3°C.
- Operating temperature from -40°C to +80°C in air.

Field of use

- Waterproofing protective product for roofs, stairs, balconies, bridges, terraces, etc.
- Easy to apply even in spots difficult to reach.
- Usable to make waterproofing with nonwoven fabric.
- Waterproofing beneath ceramic tiles.
- It can extend the operation of pre-existing waterproofing products.

Application

Substrate preparation

- Concrete: the surface to be treated must be free of any pollutant, dry, coherent and it must have a bond strength of at least 1,5 MPa. In any case it is necessary to make a preparation of the flooring by milling, shot peening, smoothing or sanding.
- Tar paper: remove all deformations of the tar paper. Some repair can be done with tar paper itself. Possible repairs can be done with polyurethane foam.
- Ceramic tiles: prepare the surface through 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.

Primer

On surfaces affected by humidity or counterthrust, apply at least two coats of **EPOXCEMENT TIXO** or **EPOXCEMENT HB RAPIDO** until a dry surface is obtained.

On irregular or damaged substrates, on cracks and joints apply a glass fabric or mat.

Product preparation

One-component product ready to use after homogenization with a low rate drill.

If necessary it is possible to thin it with at most 5 % **DILUENTE PU**. Do not use thinners which contain reactive groups such as alcohols. Inappropriate thinners prevent the product from curing.

Application

Applicable by brush, roller or airless spray gun.

In the latter case thin the product with 5-8 % of **DILUENTE PU**, use a pump such as Graco Mark V, 421-423 nozzles, 200 bar pressure, hoses diameter: 1/2 inch (first 15 metres), 3/8 inch (next 15 metres), 1/4 inch (latest 1-2 metres).

On the wet paint it is possible to apply the nonwoven fabric or the glass mat, then with a clean roller press lightly on the surface to improve the contact between the fabric and the product. Applications without nonwoven fabric or glass mat are anyway feasible.

To increase the UV resistance, apply one 150 g/m² coat of **ITALPAINT 10** or **ITALPAINT 67**.

Joints and connections with different materials

Pay the utmost attention to structural joints. Before the application of the protective coating create an omega-shaped support with an elastic butyl strap or a nonwoven fabric.

COAT	PRODUCT	CONSUMPTION
Primer	ITALPOX 50 (diluted) or PRIMER 60	100 g/m ²
First coat	REFLEX M1	500 g/m ²
Second coat	REFLEX M1	1000 g/m ²
Occasional pedestrian traffic, thickness 750 µm		
Primer	ITALPOX 50 (diluted) or PRIMER 60	100 g/m ²
First coat	REFLEX M1	500 g/m ²
Second coat	REFLEX M1	800 g/m ²
Third coat	REFLEX M1	800 g/m ²
Occasional pedestrian traffic, thickness 1100 µm		
Primer	RESINA 530	500 g/m ²
Quartz broadcast	grain size 0,5-0,8 mm	3000 g/m ²
First coat	REFLEX M1	1500 g/m ²
Second coat	REFLEX M1	1500 g/m ²
Occasional pedestrian traffic, thickness 2000 µm		

Tools cleaning

The tools must be cleaned with **DILUENTE** after use.

Technical data

Colour	Grey, white, red, others on request	-
Density		
Normal version	1,59 ± 0,05 kg/l	EN ISO 2811-1
Thixotropic version	1,45 ± 0,05 kg/l	
Broof version	1,50 ± 0,05 kg/l	
Viscosity at 20°C		
Normal version	7500 ± 1500 mPa · s	EN ISO 2555
Thixotropic version	18000 ± 4000 mPa · s	
Broof version	20000 ± 5000 mPa · s	
Non-volatile-matter content	90 ± 2 %	EN ISO 3251
Impact resistance	4 N · m	EN ISO 6272
Elongation at break	> 450 %	EN 12311-2
Bond strength by pull-off	> 4 MPa	EN 1542
Shore A hardness	> 70	EN ISO 868
UV Resistance (INVE 2000) P-500W lamp	Excellent 50 hours at 70°C	
Crack bridging		
Method A, static	A5 (23°C)	EN 1062-7
Method B, dynamic	> B4.1 (23°C)	
Hydrolysis 30 days at 55°C	Excellent	
Carbon dioxide permeability	$s_D > 50 \text{ m}$	EN 1062-6
Water vapour permeability	$s_D < 5 \text{ m}$	EN ISO 7783-2
Liquid water permeability	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	EN ISO 1062-3
Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives		UNI EN 14891
Initial adhesion	> 0,5 MPa	
Adhesion after water contact	> 0,5 MPa	

Curing

At 22°C, 50 % R.H.	
- Touch dry	7-9 hours
- Insensitive to rain	7 hours
- Overcoating	24 hours maximum
- Complete curing	10 days

Since the product is moisture curing, the curing speed is strongly affected by the relative humidity of the environment.

To increase the curing speed, use at most 3,4 % of **ACCELERANTE**: 850 g of accelerator in 25 kg of product.

Do not add more quantity of **ACCELERANTE**, otherwise the product will not cure.

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 6 months.

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.

		
PERFORMANCES IN COMPLIANCE WITH CERTIFICATION CE EN 1504-2		
Product type 1808		DoP 129
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	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0.5}$	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 I	EN ISO 6272-1
Abrasion resistance	$< 3000 \text{ mg}$	EN ISO 5470-1
Hazardous substances	The hardened product does not release hazardous substances	
Reaction to fire	F	EN 13501-1
Exposition to artificial atmospheric agents	No blistering, no cracking, no flaking	EN 1062-11

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