ELASTOBITUME

TWO-COMPONENT, ELASTIC, SOLVENT-FREE, BITUMEN EPOXY BASED WATERPROOF COATING

WATER-PROOFING LINE

FLEXIBLE WATERPROOFING POLYMERIC COATINGS FOR EXTERNAL SURFACES

CE 1504-2 · THERMAL SHOCK UP TO 180°C · FLEX · IMPROVED ADHESION · SOLVENT FREE · LOW TEMPERATURE EASY SPRAY · LOW VOC

ELASTOBITUME is a two-component, elastic, solvent-free, anti-corrosion, waterproof coating with high mechanical strength, good thermal, chemical and weather resistance and very good adhesion. **ELASTOBITUME** is a specially formulated coating based on epoxy resins modified with elastic polyamide cured epoxy resins and non-toxic synthetic bitumen. Its chemical nature and performance makes it ideal to waterproof concrete also before the realisation of hot-laid bituminous pavements.

BENEFITS

ELASTOBITUME is a bitumen epoxy based waterproof membrane ideal for the protection and waterproofing of structures subject to atmospheric aggression.

Product characteristics:

- ✓ **EXCELLENT ELASTICITY:** the coatings prepared with **ELASTOBITUME** show a good elasticity.
- ✓ **HIGH ADHESION: ELASTOBITUME** has an excellent adhesion to concrete, steel and construction materials in general.
- ✓ **WATERPROOF AND CORROSION-RESISTANT: ELASTOBITUME** is waterproof and provides an effective protection against corrosion.
- ✓ **HIGH FREEZE/THAW RESISTANCE:** the adhesive and elastic properties of **ELASTOBITUME** remained unaltered even after exposure to freeze/thaw cycles.
- ✓ **RESISTANT TO DE-ICING SALTS: ELASTOBITUME** is resistant to salt solutions and chlorides and therefore to the impact deriving from the use of de-icing salts.
- ✓ **RESISTANT TO HYDROCARBONS: ELASTOBITUME** is resistant and impermeable to automotive fuels.
- ✓ **RESISTANT TO ABRASION AND THERMAL SHOCK: ELASTOBITUME** shows a good resistance to abrasion and high temperatures.
- ✓ **EASY TO APPLY: ELASTOBITUME** is easy to spray-apply using a two-component spraying machine with thermostat. **ELASTOBITUME** allows to easily realise 2 to 4mm thick waterproof coatings.
- ✓ **Solvent-free; non flammable.**
- ✓ **Compatible with asphalt and bituminous pavements**.

USES

ELASTOBITUME allows to easily realise flexible, waterproof seamless coatings to waterproof and protect:

- ✓ concrete decks of bridges, viaducts and overpasses;
- ✓ purification tanks, channels, sewers and piping systems in general;
- ✓ tunnels, underpasses, underground car parks.
- ✓ Waterproofing of concrete structures in general, subject to atmospheric aggression.

Used in combination with a fibreglass mesh, **ELASTOBITUME** can be used for the protection and waterproofing of cracked metal or reinforced concrete structures or structures subjected to stress and strong vibration.

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ELASTOBITUME

SUBSTRATE PREPARATION

SUBSTRATE CLEANING

- **Remove any loose material and flaking concrete**, including grout slurry, from the area to be treated by either mechanical chiselling or pressure washing; take care not to damage the structures.
- **Remove spots, efflorescence or soaked-in stains** of oil, grease, paint, lime, etc.
- **Remove dust, dirt or other residues which may interfere with the bond of the coating to the substrate.**
- In presence of compact substrates, there is no need to treat the cementitious supports with an adhesion promoting primer.
- Metal surfaces shall be sanded or brushed.

SUBSTRATE PREPARATION

- **Roughen the surface** mechanically by bush hammering, chiselling or hydrodemolition (this last avoids damage to the substrate and is recommended for large areas) until reaching the sound, compact concrete to enhance adhesion between mortar and substrate.

PREPARATION OF THE MIX

No preheating is needed. Mix the single components A and B in their containers before mixing them together.

Thoroughly mix components A and B together for at least 4-5 minutes using a low-speed mixer. Respect the recommended weight or volume ratio (A:B = 1:1).

APPLICATION

After proper mixing, **ELASTOBITUME** can be spray-applied using a two-component volumetric machine. On treated concrete surfaces to be coated with a bituminous screed, it is recommended to broadcast quartz sand (500-1200 microns) or marble granules (600-1200 microns) to excess at a rate of about 2.5-3 kg/m^2 over the last applied layer.

On substrates with an incline equal to or less than 3%, it is possible to apply a 4mm thick layer in a single step using an airless two-component spray gun with static mixer fitted to the nozzle (compression ratio 70:1, flow rate of at least 7 l/min with internal recirculation).

PACKAGING AND STORAGE

ELASTOBITUME is packed in:

- 10 kg pail + 10 kg pail

- 20 kg pail + 20 kg pail

If properly stored in a sheltered, dry place in its original container, the product maintains its properties for one year.
Protect from frost.

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CHARACTERISTICS AND APPLICATION SPECIFICATIONS

MIX COLOUR	Black
A+B MIXING RATIO	1:1
A+B MIX DENSITY (20°C) - EN ISO 2811	1.6 kg/l ± 0.1
DRY MATERIAL CONTENT AT 105 °C - UNI EN 480-8	100%
APPLICATION TEMPERATURE RANGE	from +5 °C to +40 °C
THEORETICAL CONSUMPTION	1.6 kg/m^2 per mm of thickness
RECOMMENDED APPLICATION THICKNESS	minimum 2 mm / maximum 4 mm
POT LIFE (WORKABILITY)	approx. 60 minutes (+20 °C) approx. 45 minutes (+30 °C) approx. 15 minutes (+40 °C)
DUST-DRY	approx. 4 hours (+20 °C and 65% R.H.)
OVERCOATING/OVERPAINTING	approx. 8 -10 hours (+20 °C)
TIME BEFORE LAYING THE BITUMINOUS SCREED	min. 12 hours (approx.) (+20 °C)
HARDENING AT DEPTH	approx. 24 hours (+20 °C)
COMPLETE CURE TIME	approx. 7 days

PERFORMANCE CHARACTERISTICS 20 °C - 50% R.H. - 3 mm thickn.

PERFORMANCE CHARACTERISTIC	TEST METHOD	REQUIREMENTS ACCORDING TO UNI EN 1504-2 PR. PI (1.3)- MC (2.2)	PRODUCT PERFORMANCE
VISCOSITY	EN ISO 3219		6 Pa.sec @ 10 Pa.sec (thixo)
SHORE A HARDNESS	UNI EN ISO 868	±3 units (Shore A) after 7 days	70
TGA - HDSC (softening)	ISO 357-7		> 180°C
BOND STRENGTH TO CONCRETE (MC substrate (0.40) with a water-cement ratio of 0.40) according to EN 1766	EN 1542	≥1.5 MPa	>2 MPa (substrate failure)
ABRASION RESISTANCE - TABER TEST – H22 wheel, 1000 cycles (revs)/1000 g	EN ISO 5470-1	Loss in weight: less than 3,000 mg with H22 abrading wheel/1,000 cycles (revolutions)/load of 1,000 g	70 mg
CARBON DIOXIDE PERMEABILITY	EN 1062-6	S_D > 50 m	Sd > 50m
WATER-VAPOUR TRANSMISSION RATE – equivalent air layer thickness S_D	EN ISO 7783-1	class I S_D < 5 m (permeable) class II 5 m ≤ S_D ≤ 50 m class III S_D >50 m (non permeable)	class III > 50m
CAPILLARY ABSORPTION AND PERMEABILITY TO WATER	UNI EN 1062-3	w < 0.1 kg/m^2 h$^{0.5}$	< 0.001 kg/m^2 h$^{0.5}$
THERMAL COMPATIBILITY (bond strength according to EN 1542 to concrete surfaces (MC 0.4) - UNI EN 1766) - Freeze-thaw cycling with de-icing salt immersion - Thermal cycling without de-icing salt impact	EN 13687-1 EN 13687-3	> 1.5 MPa	no swelling, cracking or delamination > 2MPa

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OTHER CHARACTERISTICS 20°C - 50% R.H.

CHARACTERISTICS	PRODUCT PERFORMANCE
ADHESION TO SANDBLASTED METAL (grade SA 2.5)	> 4MPa
ELONGATION AT BREAK - UNI EN ISO 37	> 70% (at +20 °C)
DIELECTRIC STRENGTH	12,000 volt/mm
RESISTANCE TO TEMPERATURE CHANGES	-35 °C to +100 °C with peaks of 180 °C
FIRE RESISTANCE - EN 13051-1	Euroclass E Sd 0