

**WATERPROOFING POLYURETHANE ELASTOMERIC COATING FOR WATERTANKS**

**DESCRIPTION**

PENECOAT™ SF ELASTIC is an elastic, two component polyurethane coating, free of solvents, for long lasting waterproofing. Based on the polyurethane technology, PENECOAT™ SF ELASTIC can be used in even demanding applications, such as potable water tanks. It cures by reaction (cross linking) of the two components.

**RECOMMENDED FOR**

PENECOAT™ SF ELASTIC can be used on surfaces in contact with potable water. It can be used on surfaces with insufficient ventilation, as it is free of solvents.

- ▶ Waterproofing potable water reservoirs/tanks
- ▶ Waterproofing channels and pipes of potable water
- ▶ Fire protection cisterns or watering systems
- ▶ Swimming pools
- ▶ Odorless waterproofing of various applications, below tiling in bathrooms, kitchens, balconies, pool channels, etc.

**ADVANTAGES**

- ▶ Certified for use in potable water reservoirs/tanks
- ▶ Easy to apply
- ▶ When applied, it cures and creates a uniform hydrophobic membrane without joints
- ▶ Not hydrolyzed
- ▶ Flexible. Crack bridging
- ▶ Ensures excellent bonding on the surface
- ▶ Maintains its mechanical properties over a temperature span of -22 °F to 194 °F (-30 °C to 90 °C). No seasonal softening or hardening occurs
- ▶ Surface can return to service
- ▶ The membrane can be easily repaired locally within minutes, in case it gets mechanically damaged
- ▶ Low cost

**TECHNICAL CHARACTERISTICS**

Characteristics	Test Result	Test Method
Composition	Polyurethane resin + Hardener	
Color	Whitish	
Mixing ratio	A : B = 6 : 1 (by mass)	
Resistance to water pressure	No leakage	DIN EN 1928
Elongation at break	> 100%	ASTM D 412
Adhesion to concrete	> 2 N/mm <sup>2</sup> (concrete failure)	ASTM D 903
Hardness (Shore A Scale)	65 ± 5	ASTM D 2240
Solids content	100%	CALCULATED
Application temperature	41 °F to 95 °F (5 °C to 35 °C)	Conditions: 68 °F (20 °C), 50% RH
Workability time	20 min	
Curing time	6 hours	
Traffic time	12 hours	
Final curing time	7 days	
Chemical properties	Good resistance against acidic and alkali solutions (10%), detergents, seawater and oils	

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All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.

## DIRECTIONS FOR USE

**Surface Preparation:** The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the coating. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days. Old coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

**NOTE:** Careful surface preparation is essential for optimum finish and durability. Do not wash surface with water.

**Expansion joint sealing:** Prime the expansion joints with the appropriate primer (U-SEAL 110 for porous substrates). Apply a polyethylene backing rod, of the appropriate section (PENETRON® BACKING ROD) inside the joint and fill the joint with the appropriate sealer, U-SEAL or SiMP®SEAL.

**Priming:** Clean cracks and hairline cracks of dust, residue or other contamination. Fill all cracks with suitable mortar. Prime all surfaces with the PENEPOX™ SF PRIMER A+B, by roller or by brush [min. 0.05 0.06 lb/ft<sup>2</sup> (250 – 300 gr/m<sup>2</sup>)]. Wait 12 hours to dry (but not more than 18 hours).

**Mixing:** Stir thoroughly PENECOAT™ SF ELASTIC A with a drilling mixer and a mixing wand, before use. Pour the content of PENECOAT™ SF ELASTIC B into the PENECOAT™ SF ELASTIC A and mix thoroughly with a low speed drilling mixer and a mixing wand for about 3 minutes, until the mixture is completely homogeneous.

**NOTE:** The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the container.

**Mixing ratios:** Mixing ratio of PENECOAT™ SF ELASTIC is A : B = 6 : 1 (by mass).

**Application:** Apply the mixture of PENECOAT™ SF ELASTIC onto the surface and lay it out by roller, brush or trowel, until all waterproofing surface is covered. 12- 18 hours later (but not later than 36 hours), apply a second layer of PENECOAT™ SF ELASTIC A+B. 12- 18 hours later (but not later than 36 hours), apply a third layer of PENECOAT™ SF ELASTIC A+B.

**Reinforcing membrane:** Reinforcing PENECOAT™ SF ELASTIC with FABRIC across the coated surface, is highly recommended. Reinforce all critical spots with FABRIC, such as wall-floor connection, exhaust vents and piping, etc. While wet, put a correct-size piece of FABRIC on PENECOAT™ SF ELASTIC, press it to soak and then apply enough amount of PENECOAT™ SF ELASTIC, till saturation of the FABRIC. The

use of FABRIC is expected to double the PENECOAT™ SF ELASTIC consumption per ft<sup>2</sup> (m<sup>2</sup>). Contact PENETRON ROMANIA for detailed application instructions, regarding FABRIC.

**Coverage:** 0.25 – 0.31 lb/ft<sup>2</sup> (1.2 – 1.5 kg/m<sup>2</sup>) applied in 2 - 3 layers. The use of FABRIC is expected to double the PENECOAT™ SF ELASTIC consumption per ft<sup>2</sup> (m<sup>2</sup>).

## SPECIAL CONSIDERATIONS

For the best results, the temperature application and curing should be between 50 °F to 95 °F (10 °C to 35 °C). Low temperatures cause curing retardation, while high temperatures speed up curing. High humidity may affect the final finish.

The material is recommended for structures that are not exposed to direct sunlight. If exposed to sunlight, the material shows partial yellowing and chalking effect, but, generally maintains good mechanical properties.

Careful compliance with the time margins is essential for an excellent result.

All the produced mixture must be used immediately on the surface, as polymerization causes an exothermic reaction and the mixture hardens quickly, preventing from applying it properly.

When you apply PENECOAT™ SF ELASTIC A+B, ensure that its consumption is inside the working time limits (30 minutes).

Hands and tools should be cleaned, before polymerization with the solvent PENE CLEANER™ PLUS.

Contact PENETRON ROMANIA for further information, regarding your project.

## PACKAGING

PENECOAT™ SF ELASTIC A+B is available in 13+2.2 lb (6+1 kg) containers.

## STORAGE / SHELF LIFE

PENECOAT™ SF ELASTIC A+B can be stored for 12 months in its original packing (unopened container) at 41 – 95 °F (5 – 35 °C) in a cool, dry place. Keep away from wet areas and direct sunlight.

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**SAFE HANDLING INFORMATION**

Keep away from ignition sources. No smoking. Sufficient ventilation or appropriate mask is recommended. Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves, mask and goggles should be worn. For further information please refer to Material Safety Data Sheet. KEEP OUT OF REACH OF CHILDREN.

**CERTIFICATION**

PENECOAT™ SF ELASTIC is certified by the current European and German regulations for use on surfaces with permanent contact with potable water. PENECOAT™ SF ELASTIC is certified by the General Chemical State Laboratory, based on the German Standard Kunststoffe im Lebensmittelverkehr, par. 1.3.2.5.2), the Greek Standard (Codex Alimentarius, articles. 21,21a,24,26,28) and the current European regulations. All test were carried out based on ELOT EN 1484, prEN 12873-1, prEN 14395-1 Standards.

**WARRANTY – DICLAIMER**

BEST IMPORT PRODUCTS PENETRON warrants that its products are manufactured under certified ISO Standard procedures, are of excellent quality and shall be free from material defects and contain all components in their proper proportion. Should any of the products be proven defective, the liability to BEST IMPORT PRODUCTS PENETRON shall be limited to replacement of the material proven to be defective, since the standard application procedures have been met and the suitability of the product for the particular application have been proven. BEST IMPORT PRODUCTS PENETRON makes no warranty as to merchantability of fitness for a particular purpose. User, after contacting the distributor of the product, shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. While every care has been taken, the information provided in this product's data sheet make no part of any contract. All recommendations, technical data and test data contained in this product's data sheet are based upon the results of control laboratory tests or in actual field tests. However, BEST IMPORT PRODUCTS PENETRON makes no warranty of any kind, concerning this data. In any case, this data are given in good faith based in the BEST IMPORT PRODUCTS PENETRON experience, till the publication of this sheet. Due to variance in storage, handling and applications of the materials, BEST IMPORT PRODUCTS PENETRON accepts no liability for the results obtained. It is suggested that potential users try small applications to determine the suitability of each individual product for their specific requirements. The users should always refer to the most recent edition of the product's data sheet. BEST IMPORT PRODUCTS PENETRON may particularly differentiate its versions of the product's data sheet compared with those of PENETRON INTERNATIONAL LTD or respective PENETRON companies worldwide. These changes are due to text formatting, different application weathering and procedures or different product names and aim at the optimal consumer information.

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