

CONCRETE WATER EXPANDING FLEXIBLE JOINT WATERSTOP STRIP

**DESCRIPTION**

PENEBAR™ SW-45 Rapid is a unique bentonite infused butyl rubber sealing compound designed to expand rapidly when exposed to moisture, making it a self-healing joint material for construction joint applications.

**RECOMMENDED FOR**

- ▶ Building foundations
- ▶ Slabs
- ▶ Retaining walls
- ▶ Storage tanks
- ▶ Non-moving cold construction joint applications

**TECHNICAL CHARACTERISTICS**

Characteristics	Test Result	Test Method
Color	Black	
Specific gravity	1,55 ± 0,05 kg/L (93,64 ± 3,12 lb/ft <sup>3</sup> )	ASTM D-71
Volatile matter	1% max.	ASTM D-6
Penetration (150 g cone at 25 °C (77 °F); 5 sec)	40 ± 5 mm (1 37/64" ± 13/64")	ASTM D-217
Application temperature	-23 °C to 38 °C (-10 °F to 100 °F)	
Service temperature	-34 °C to 82 °C (-30 °F to 180 °F)	

**Rate of rapid expansion of PENEBAR® SW-45 RAPID**

**Freshwater Exposure Results:**

Exposure Time	Expansion	Test Results
24 hours	140%	Visible signs of cracking along edges of specimen
48 hours	175%	Splitting along the sides of the specimen. Both ends opening up like a flower blossom
72 hours	190%	More pronounced splitting along sides and ends
120 hours	210%	Specimen's expansion became so great that further testing was impracticable

**Saltwater Exposure Results:**

Exposure Time	Expansion	Test Results
24 hours	107%	No visible sign of deterioration
48 hours	112%	No visible sign of deterioration
72 hours	114%	No visible sign of deterioration
120 hours	218%	No visible sign of deterioration

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

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**DIRECTIONS FOR USE**

**Surface Preparation:** Carefully brush off all dust and debris and apply a coat of appropriate PENEBAR® PRIMER to the area, where the PENEBAR® SW-45 RAPID is to be placed.

**Application:** Apply PENEBAR® PRIMER by using brush at a minimum of 0,1mm (4 mils thick) by 25 mm wide over the entire surface length to receive PENEBAR® SW-45 RAPID. Allow it to dry for 10-15 min at a temperature of 25°C (77°F) or where the temperatures are low, allow it dry for longer time. By using the heel of the hand and moderate pressure, press a bead of PENEBAR® SW-45 RAPID firmly into position on the standing structure. Make sure the product has bonded with the primed area. Where required, splice ends to form a continuous, uninterrupted seal. For best results, cut each end at opposite 45° angles and tightly butt ends together. **DO NOT OVERLAP ENDS.** Gently knead the spliced ends creating an uninterrupted seal. Peel the protective covering from the exposed side of the installed PENEBAR® SW-45 RAPID. Follow standard concrete placing procedures from here onwards.

**SPECIAL CONSIDERATIONS**

Always use PENEBAR® PRIMER to ensure tight adhesion and to aid in preventing PENEBAR® SW-45 RAPID from moving, during the concrete pour. For vertical surfaces, nails may be used to hold the product in place in conjunction with PENEBAR® PRIMER.

PENEBAR® SW-45 RAPID should be used at a minimum depth of 50 mm (2") inside the concrete.

When used on pipes and other structural penetrations, PENEBAR® SW-45 RAPID should be cut to measured length and placed around the penetration with ends butted.

In all cases, PENEBAR® SW-45 RAPID should be in direct contact with the substrate along the entire length of the installation.

PENEBAR® SW-45 RAPID is not an expansion joint sealant and only suitable for non-moving concrete joints.

PENEBAR® SW-45 RAPID should not be installed in standing water or on frozen or icy surfaces.

Contact PENETRON HELLAS S.A. for further information regarding your project.

**PACKAGING**

PENEBAR® SW-45 RAPID is available in two types:

Type A is packaged 30 meters/carton [6 rolls, 19mm x 25mm x 5m (3/4" x 63/64" x 16,4 ft), each].

Type B is packaged 24 meters/carton [6 rolls, 9mm x 25mm x 4m (23/64" x 63/64" x 13,2 ft), each].

**STORAGE / SHELF LIFE**

When stored in a dry enclosed area off the ground at a minimum temperature of 7 °C (45 °F) in unopened, undamaged cartons, shelf life is unlimited.

**SAFE HANDLING INFORMATION**

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 Safety Data Sheet. PENETRON HELLAS S.A. has recently updated Safety Data Sheet on the safe use of PENETRON® products. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. **KEEP OUT OF REACH OF CHILDREN.**

**CERTIFICATION**



Penetron International Ltd.  
45 Research Way, Suite 203  
East Setauket, NY 11733  
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PENEBAR SW-45 RAPID

Swellable joint sealing tape

European Technical Assessment

ETA-22/0619 of 16.01.2024

Reaction to fire: Class E

Dimensions: Type A 19 mm x 25 mm

Type B 9 mm x 25 mm

Watertightness in end use conditions: 12 m water column / watertight up to 3 bar tested

Swelling behaviour in different liquids at state of delivery:

Deionised water: 15 d, 175%

Alkaline solution: 25 d, 224%

Acidic solution: 14 d, 92%

Reversibility of swelling process:

-Swelling process is reversible in 12 days

- Swelling process started without time lag

Swelling pressure: 0.6 N/mm<sup>2</sup>

## CONCRETE WATER EXPANDING FLEXIBLE JOINT WATERSTOP STRIP

## WARRANTY – DISCLAIMER

PENETRON HELLAS S.A. 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 PENETRON HELLAS S.A. 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. PENETRON HELLAS S.A. 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, PENETRON HELLAS S.A. makes no warranty of any kind, concerning this data. In any case, this data are given in good faith based in the PENETRON HELLAS S.A. experience, till the publication of this sheet. Due to variance in storage, handling and applications of the materials, PENETRON HELLAS S.A. 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. PENETRON HELLAS S.A. 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

PENETRON HELLAS S.A.  
G.E.MH. No: 07278001000  
Athens Headquarters - Greece  
50 - 52, Thrakomakedonon Av.  
136 79 Acharnes, Greece  
T: +30 210 2448250  
F: +30 210 2476803  
info@penetron.gr, www.penetron.gr