

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/ft³)	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	118%	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 × 25mm × 5m (¾" × 63/64" × 16,4 ft), each].

Type B is packaged 24 meters/carton
[6 rolls, 9mm × 25mm × 4m (23/64" × 63/64" × 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



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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/mm²

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