

SEALING OF EXPANSION JOINTS



Surface Preparation

Surfaces must be clean, dry, free of water, oil, grease or rust and of sound quality. Remove all loose particles or residues with a jet of compressed air, sandpaper or hard brush. Glass, metal and other non-porous surfaces must be free of any coatings and wiped clean with solvent (indicatively, use of U-CLEANER ACTIVATOR with fabric). To ensure the free movement of the material in the joints, it is necessary that the adhesive does not come in contact with the bottom of the joint. Therefore, for correct joint caulking, a closed-cell polyethylene bead (joint backing rod) PENETRON® BACKING ROD of suitable diameter is to be placed at the proper depth. Use mechanical means so as to remove loose and inert elements and to create such a depth gap, that it is possible to place a suitable cord made of expanded polyethylene (P.E.).

The following matrix contains the Indicative Information, regarding the desirable Width to Depth ratio (W:D) of the expansion joint, when a PENETRON® BACKING ROD is placed in the joint (The Depth is considered the distance between the surface of the joint to the surface of the backing rod).

Expansion Joint Width	W:D
Up to 10 mm	1 : 1
10 – 20 mm	1 : 2/3
Above 20 mm	1 : 1/2

For example, for a joint width ~ 50 mm, the desired depth for the filler should be ~ 25 mm, in the middle of the expanded polyethylene cord.

For the above case, it is recommended to install the PENETRON® BACKING ROD cord with a diameter of 60 mm, so that it fits snugly into the joint. The desirable total cleaning depth of the joint should be approximately 95-100 mm, so the remaining mean depth of filling the sealant should be 25-30 mm.

Priming

Prime the sides of the joint with U-PRIMER 110 for absorbent surfaces or U-CLEANER ACTIVATOR and U-PRIMER 130 for non-absorbent surfaces.

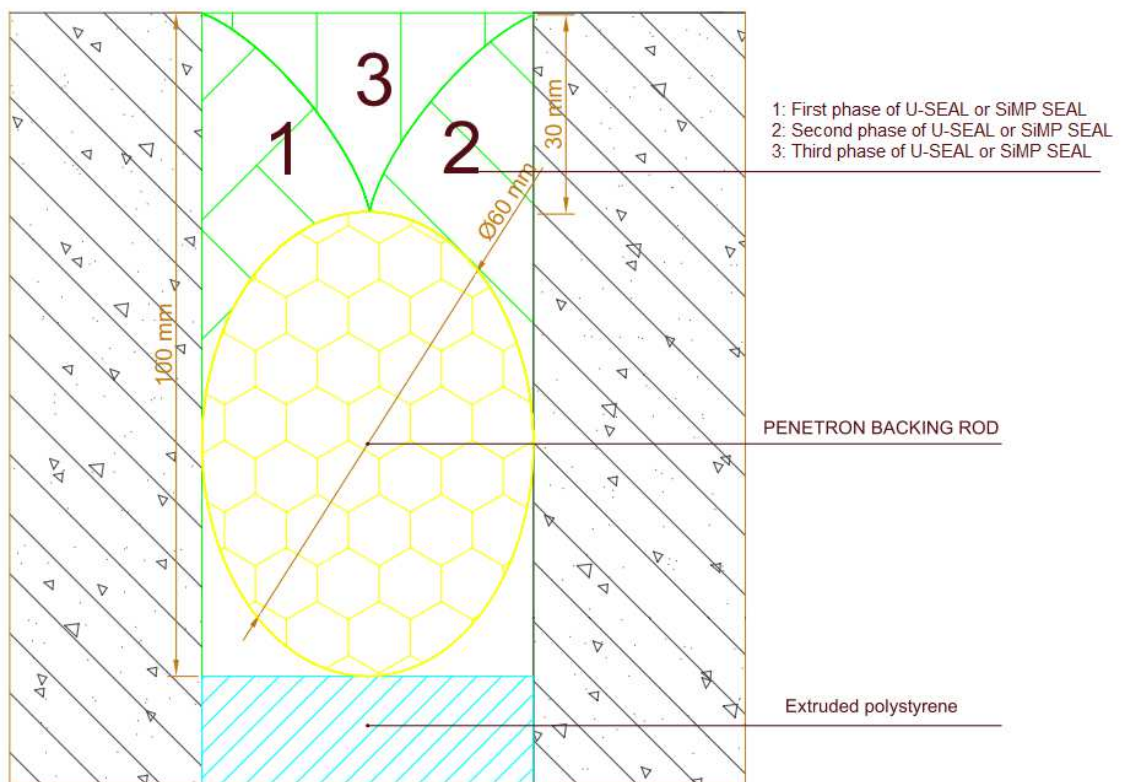
Application of Sealant

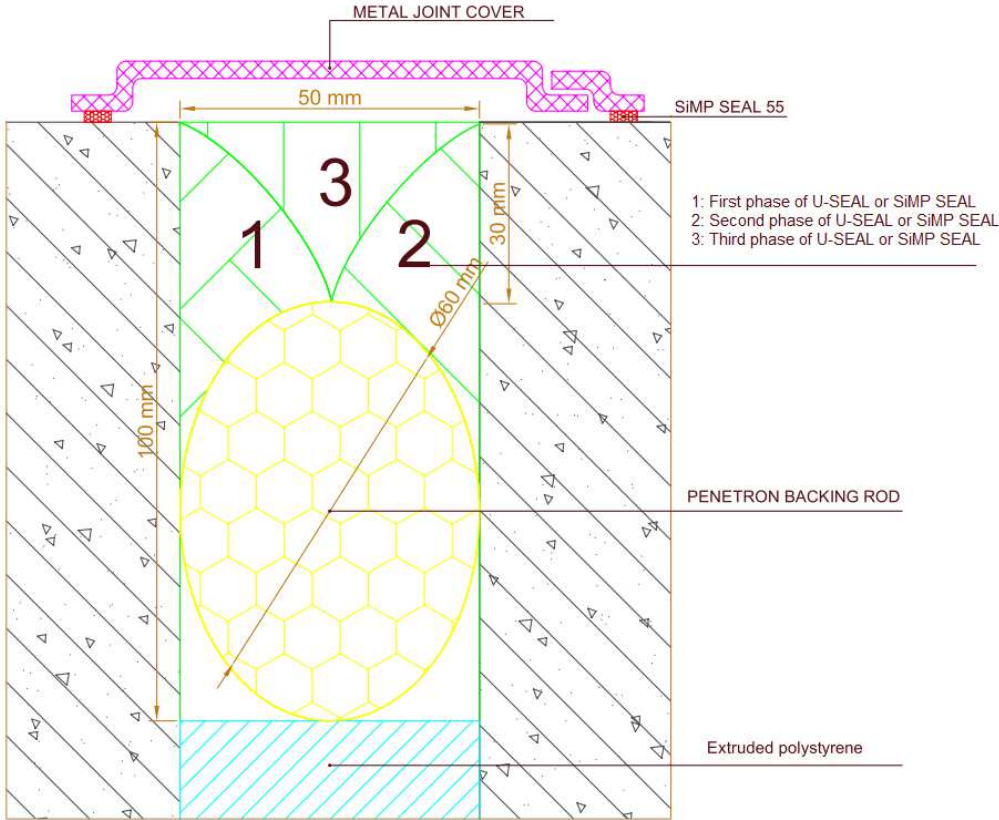
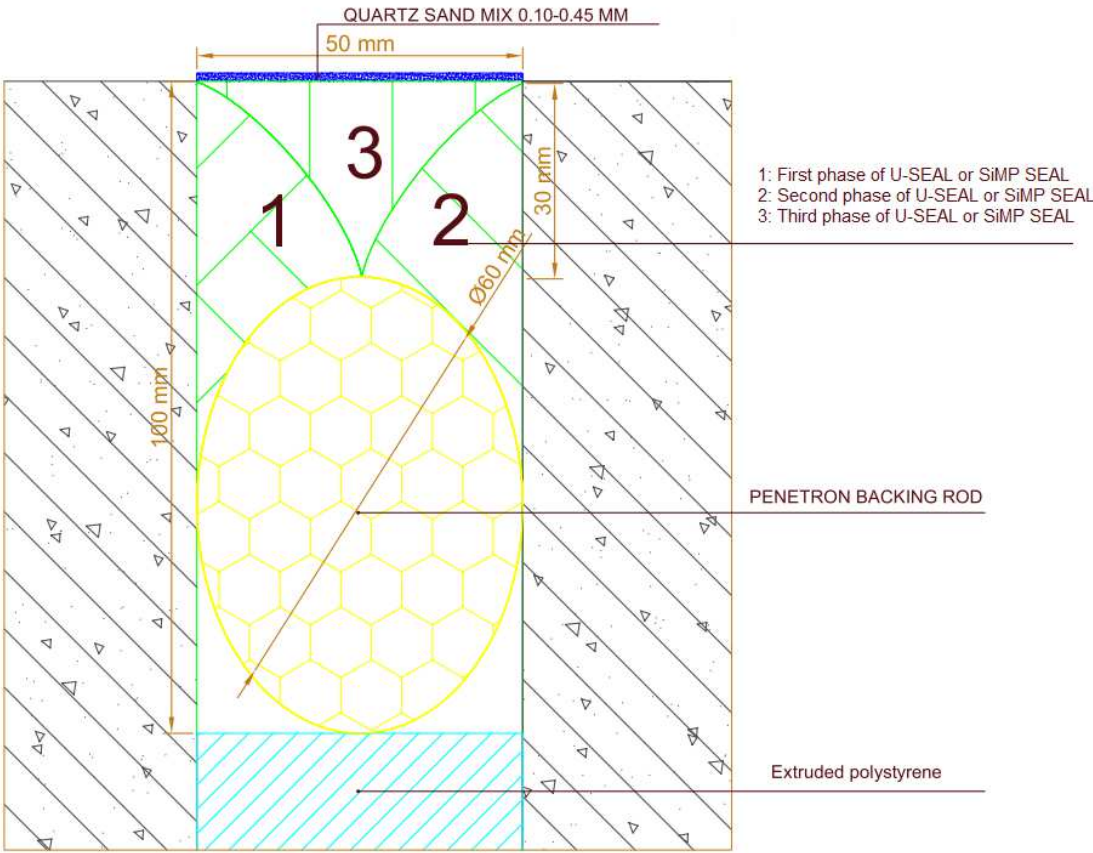
Fill the joint with the appropriate sealing material U-SEAL or SiMP® SEAL, partially and in three phases for joint thickness greater than 30 mm, starting the filling from the gaps created between the expanded polyethylene cord PENETRON® BACKING ROD and the sides of the joint. Continue to fill the joint by pressing firmly, so as to ensure full contact of the material on the sides of the joint. For

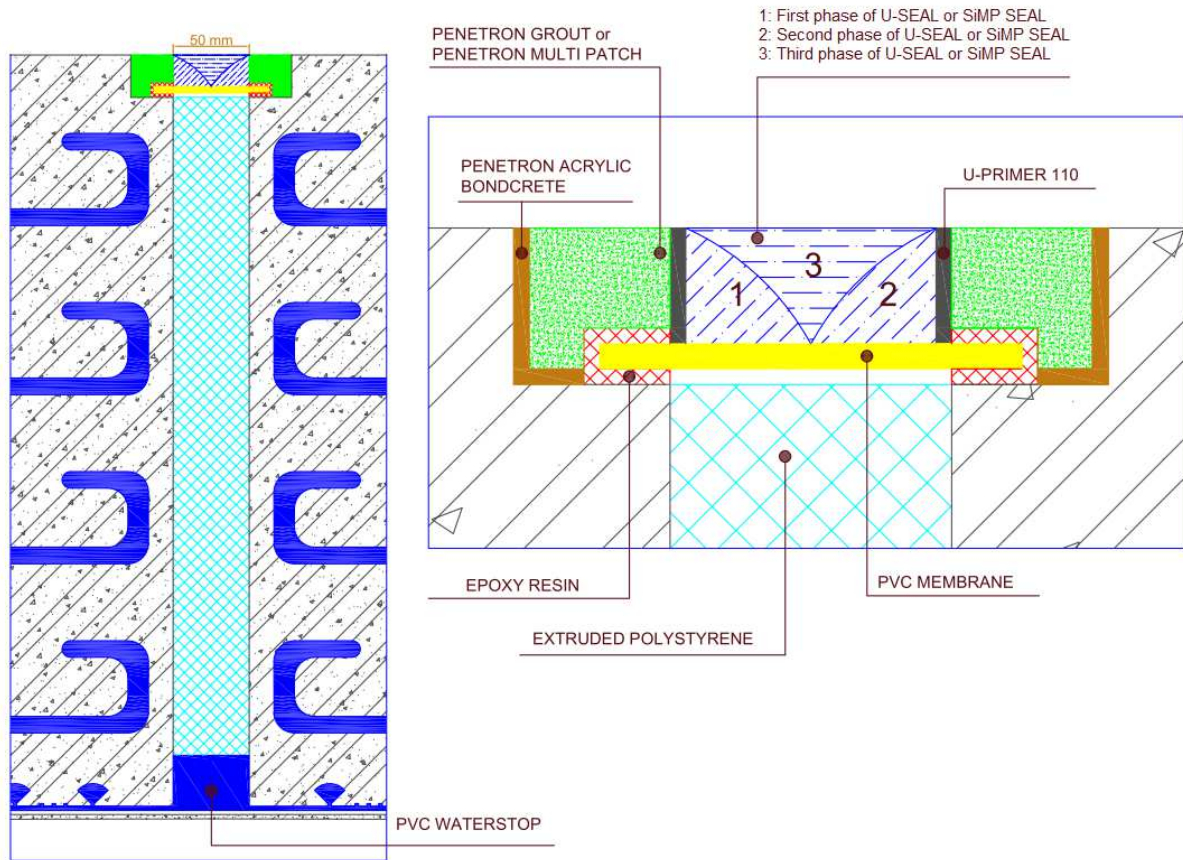


joint thickness between 15 mm and 30 mm, the filling of the joint is done in two phases and for joint thickness less than 15 mm, the filling of the joint is done in one phase. U-SEAL or SiMP® SEAL are smoothed using a shaping tool, to ensure full contact on the sides of the joint, which will also contribute to avoid the air bubbles, which may be formed inside the sealant. For precision in lines of the joints, tapes should be used, that will be removed after the installation of the sealant and prior its curing.

A schematic description is depicted below:







The description texts mentioned above are not subject of a case study, but technical propositions, according to our best of knowledge and based on our experience and knowledge up to date. For more information, regarding the safe use, treatment and storage of our products, contact PENETRON HELLAS and refer to the Product Data Sheet and Safety Data Sheet of every product you use.

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