



FLEXVERSE®

HYDROPHILIC SWELL BAR

Waterproofing solution for construction cold joints and concrete penetrations

Technical Data Sheet

PRODUCT DESCRIPTION

The FLEXVERSE® hydrophilic swell bar is a type of waterstop that can be used to stop water ingress through cast-in place concrete construction joints and penetrations in concrete.

The profile has a unique hydrophilic structure, which has been engineered to swell on contact with water, and exert pressure against the ingress inside the structure. This forms an effective sealing system that can bar water entering even through the most microscopic cracks and penetrations.

The FLEXVERSE® swell bar is versatile water-tight seal that can be used in many situations, including but not limited to:

- Construction joints, including those in cable ducts
- Pipe, steel and pile cap penetraitons through walls and base slabs
- All types of penetrations around concrete

CHARACTERISTICS AND ADVANTAGES

Clients enjoy multiple benefits from using FLEXVERSE® swell bars on their sites, owing to several advantageous features of our swell bars:

- Reversible swelling chemistry tailored for multiple-cycle use
- Tested for long-term reliability
- Easy installation on various substrates
- No welding or hardening time required
- Resistant to several chemicals
- Adaptable to many different detailing tasks
- Can be used in conjunction with other waterproofing systems
- Non-toxic and environment-friendly
- Highly economical

TECHNICAL SPECIFICATIONS

Minimum volumetric expansion (in percentage)

Testing method follows IS 3400 (Pt-6):2012 / ASTM D417

Liquid	Time elapsed since immersion	Bentonite swell bar	Polymer swell bar	Saline swell bar
Portable water	24 hours	100	100	100
	7 days	300	250	600
Saline solution	14 days	-	-	100

Note: we can manufacture as per other client specifications or requirements as well.
Above specifications are subject to change due to continuous R&D.



DIMENSIONS

FLEXVERSE® Bentonite swell bars	FLEXVERSE® Polymer swell bars	FLEXVERSE® Saline swell bars	Width (mm)	Height (mm)	Packaging (quantity per carton)
FVB-401	FVP-501	FVS-1001	20	25	50 metres (10m x 5 coils)
FVB-402	FVP-502	FVS-1002	20	10	100 metres (20m x 5 coils)
FVB-403	FVP-503	FVS-1003	20	5	150 metres (25m x 6 coils)
FVB-404	FVP-504	FVS-1004	20	20	75 metres (15m x 5 coils)
FVB-405	FVP-505	FVS-1005	20	6	150 metres (25m x 6 coils)
FVB-406	FVP-506	FVS-1006	25	10	80 metres (20m x 4 coils)
FVB-407	FVP-507	FVS-1007	15	10	120 metres (20m x 6 coils)
FVB-408	FVP-508	FVS-1008	25	15	60 metres (15m x 4 coils)

The swell bars can be customised in various colours, as well as other dimensions/packaging.

INSTALLATION GUIDE

Pre-installation: FLEXVERSE® hydrophilic swell bars should be stored in a cool, dry and well-ventilated place. The application surface must be cleaned, free from all grease, dirt and debris, and dried completely. A rough surface is preferred for better gripping.

Application: The swell bar can be secured horizontally or vertically, and should be positioned on the joint leaving at least 3-inch concrete coverage on all sides, to allow for safe build-up of expansionary pressure. Continuous contact with the surface must be maintained to maximise the sealing capacity, and to prevent any displacement. This can be done with the use of suitable adhesives and/or other mechanical fasteners, like nails.

Completing installation: Concreting should be done shortly after application, to avoid premature swelling. The concrete around the swell bar should be vibrated systematically to obtain impermeable, void-free concrete in vicinity of the joint, and to maximise contact between the concrete and water bar.

