



Specialist Construction Supplies for Repair, Maintenance, Building & Infrastructure

Hydrocell XL Data Sheet

Specification notes

Product: **Hydrocell XL**

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Hydrocell XL



Cross linked, non-absorbent, closed cell, polyethylene joint filler

Uses

Hydrocell XL is a cross linked, non-absorbent, semi-rigid, cellular polyethylene joint filler used for forming expansion joints in concrete, brickwork and blockwork. The product provides excellent support to sealants subject to hydrostatic pressure and is particularly recommended for water retaining or water excluding structures.

- Potable water reservoirs
- Culverts and canals
- Sewage tanks
- Roadways and hardstandings
- Retaining walls
- Basement structures and subways
- Runways, taxiways and aprons

Advantages

- Cross linked to resist lateral and hydrostatic pressure
- High density support of sealant to prevent adhesion failure
- Non-absorbent closed cell structure
- High compression recovery
- Non-extruding
- Low load transfer to joint edges
- Non-tainting and rot proof
- Chemically resistant
- Bitumen free
- Natural bond breaker

Standards compliance

Water Authorities Association, Civil Engineering Specification for the Water Industry, 4th Edition, Clause 2.124.

DTp Specification for Highway Works, December 1991, Series 1000, Clause 1015.

BS 5628, Part 3: Code of Practice for the Use of Masonry.

Description

Hydrocell XL is a cross linked, semi-rigid, closed cell polyethylene sheet material used for forming or filling expansion joints between adjacent in-situ or precast

components. Hydrocell XL provides excellent support backing to elastomeric sealants and is especially recommended for use in expansion joints in brickwork and in the construction of water retaining and water excluding structures.

The compressive strength of Hydrocell XL prevents the transfer of load across movement joints.

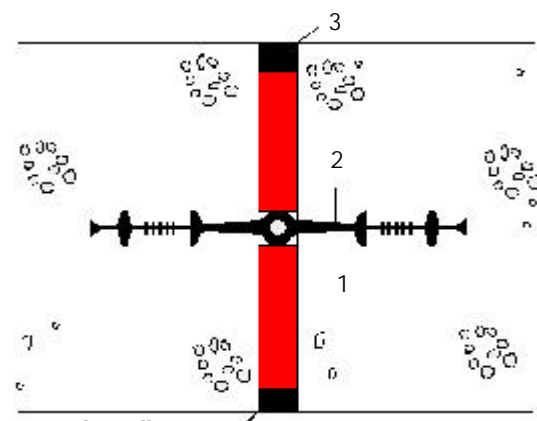
Each cell is cross linked thereby preventing breakdown under hydrostatic pressure. The closed cell formation prevents the absorption of water.

Technical support

Fosroc offers a comprehensive range of high performance, high quality construction products. In addition Fosroc offers a technical support package to specifiers and contractors which can include computer-aided design (CAD), standard details as well as on-site technical advice from staff with unrivalled experience in the industry at locations worldwide.

Design criteria

Typical detail of a wall expansion joint occurring in a closed reservoir



- 1 Hydrocell XL
- 2 *Supercast Hydrofoil
- 3 *Thioflex 600

* Also available from Fosroc



Properties

Property	Test method	Typical values
Recovery:	ASTM D3575	98% after 50% compression
Density (nominal):	ISO 845	60 kg/m ³
Compressive strength:	ASTM D3575	0.15 N/mm ²
Water absorption:	ASTM D3575	Less than 0.05% by volume
Weathering test:	DTp Clause 1015	No disintegration
Chemical resistance:		Excellent resistance to acids, alkalis, oxidising agents and biological degradation

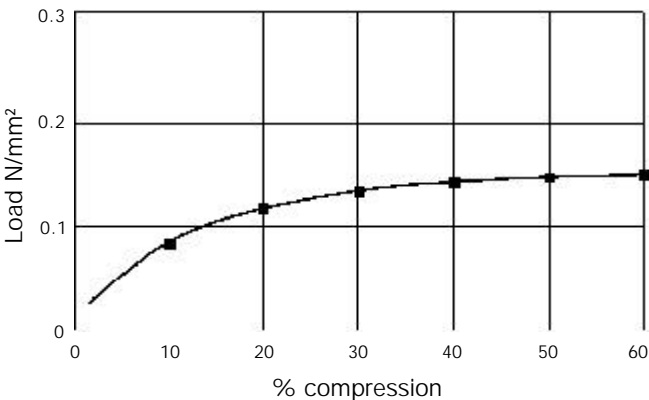
Compression loading

The load compression curve shown below gives typical compression values achieved in accordance with ASTM D3575.

Typical load/compression curve

Specification clauses

The joint filler shall be cross linked, non-absorbent, semi-rigid, cellular polyethylene with a nominal density of 60 kg/m³. It shall have a recovery of 98% after 50% compression and a compressive strength of 0.15 N/mm²



when tested in accordance with ASTM D3575. It shall have a water absorption of less than 0.05% by volume when tested in accordance with ASTM D3575 and be resistant to weathering and chemical attack. The joint filler shall have Water Byelaws Scheme approval for use in contact with potable water.

Application instructions

Joint sealing slots

When forming expansion joints with Hydrocell XL in in-situ concrete, joint sealing slots can be readily formed in the following manner.

Before installing, simply cut off a strip to the required depth. Pin the strip back by using 50 mm nails at approximately 100 mm intervals. Then install the filler flush with the finished surface.

Prior to sealing, the top strip can then be pulled easily from the joint to provide an uncontaminated sealing slot ready for preparation and sealing.

As elastomeric sealants will not bond to Hydrocell XL the additional need for bond breaker strips is eliminated.

Limitations

Hydrocell XL should not be used when the operational temperature is continuously outside the range of -70°C to 100°C.

Estimating

Hydrocell XL is supplied in the following sheet sizes and can be easily cut to the required size with a Stanley knife or saw.

- 10 mm x 900 mm x 1800 mm
- 15 mm x 900 mm x 1800 mm
- 20 mm x 900 mm x 1800 mm
- 25 mm x 900 mm x 1800 mm

Storage

Hydrocell XL should be stored in original unopened packaging, in cool dry conditions, away from sunlight.



Precautions

Health and safety

There are no known health hazards associated with Hydrocell XL in normal use.



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