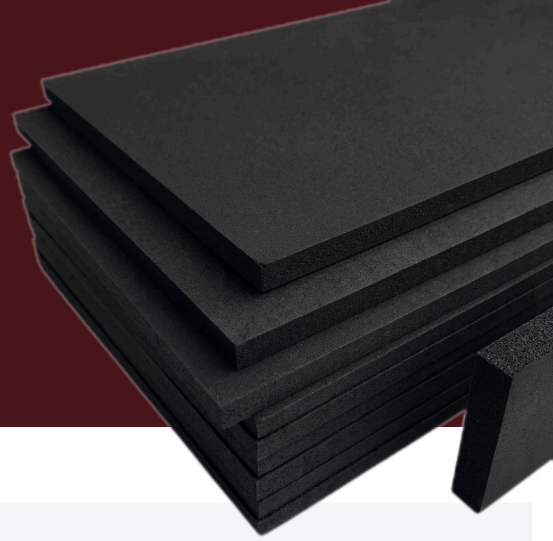
UNIFLEX® PE FILLER BOARD

CLOSED CELL POLYETHYLENE FILLER BOARD



Product Features

UNIFLEX® PE Closed Cell Polyethylene Filler Board is a non-extruding, non-absorbent, UV resistant, semi-rigid, highly resilient, bitumen-free, closed cell polyethylene board. It is used as a joint filler in expansion and movement joints in concrete, brickwork, blockwork and masonry.

Concrete expands and contracts with temperature. Expansion joints between slabs, and between slabs and other structures, give that movement room. The joint needs a filler that compresses when the concrete expands and recovers when it contracts. **UNIFLEX® PE** has high compression and recovery, so it follows the joint through these cycles.

UNIFLEX® PE is rot-proof and joint sealants do not bond to it, so it acts as a natural bond breaker. It supports the sealant and sets the sealant depth, and its top strip can be zip cut and pulled out later to leave a clean sealing slot. Being bitumen-free and non-tainting, it is also suitable for water-retaining structures.

SUITABLE FOR DRINKING WATER CONTACT
Tested to MS 1583 and cytotoxicity test · SPAN approved

Advantages

Good thermal insulation properties	Lightweight
Natural bond breaker	Non-absorbent and non-tainting
Easy to install	Bitumen free and rot proof, ideal for water retaining structures

Fields of Application

Brick Works & Block Works	Masonry
Motorways, Runways, Taxiways, Aprons	Pedestrian Areas, Piers & Kerbs
Concrete Roads & Pavements	Basements, Tunnels & Subways
Bridges & Viaducts	Abutments & Parapet Walls
Dams & Reservoirs	Water & Waste Water Treatment Plants

Compatible Products

UNISEAL® PU, PU PRO, PS and MS joint sealants
UNISTICK® CA contact adhesive, to hold the board before the second pour

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Technical Properties

Property	Unit	Test Method	Result
Density	kg/m³	ISO 845	80 ± 10%
Tensile Strength	kPa	ISO 1798	> 700
Elongation at Break	%	ISO 1798	> 80
Tear Strength	N/cm	ISO 8067	> 8
Compression Set at 23°C / 50% RH	%	ISO 1856	< 20

*Values based on independent laboratory tests (2025); test report available on request.

Physical Properties

Material	:	Closed Cell Polyethylene (PE)
Colour	:	Black *(Other colours available upon request)
Size	:	2m x 1m
Thickness	:	10mm , 12mm , 15mm , 20mm , 25mm *(30mm and above, and other sizes, on special order)
Density	:	80kg/m³ ± 10%
Packaging	:	20 sheet / bundle (10mm, 12mm) 15 sheet / bundle (15mm) 10 sheet / bundle (20mm, 25mm)
Weight	:	Dependent upon thickness

Storage

UNIFLEX® PE is a plastic product and keeps for a long time. Store it flat and under cover, in a dry place away from direct sunlight, heat and sources of ignition.

Health & Safety

UNIFLEX® PE presents no health hazard in normal handling and use. Wear gloves when cutting, and follow normal site safety practice.

Existing Joints

UNIFLEX® PE is installed before the second pour. It cannot be pressed into a joint that is already formed; use **UNIFLEX® PE BACKER ROD** to back the sealant in existing joints.

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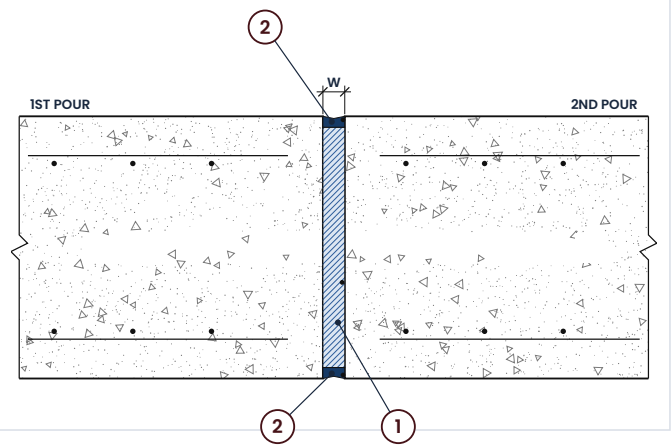
Typical Drawings & Profiles

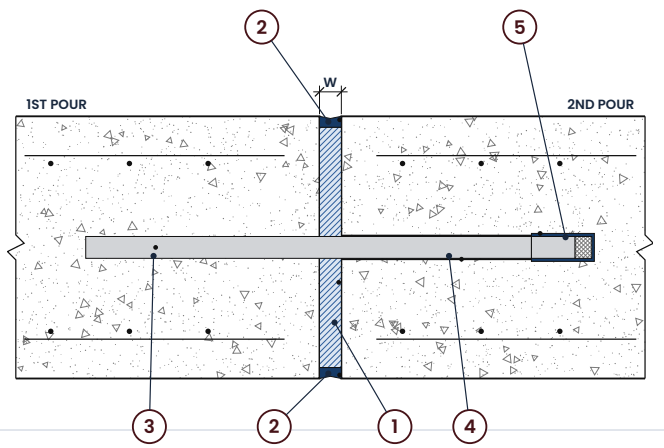
1 EXPANSION JOINT

Not to scale



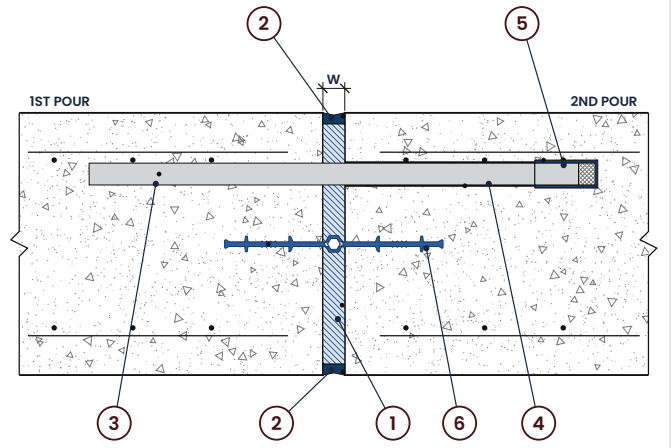
2 EXPANSION JOINT WITH DOWEL BAR

Not to scale



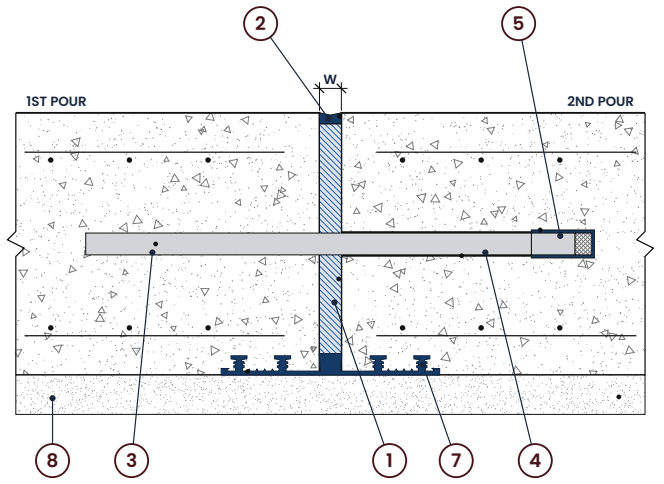
3 EXPANSION JOINT WITH WATERSTOP

Not to scale



4 SLAB ON GROUND WITH WATERSTOP

Not to scale

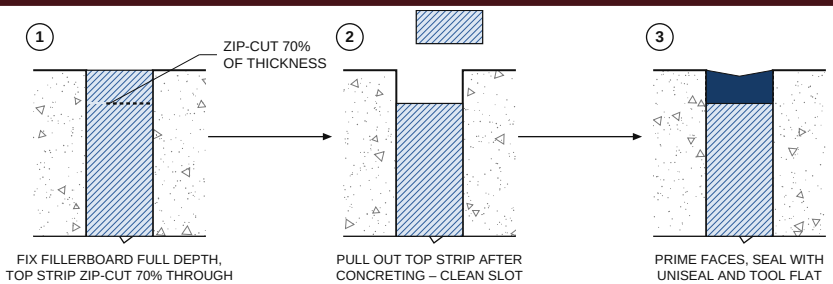


LEGEND

1. UNIFLEX® PE fillerboard
2. UNISEAL® joint sealant
3. Dowel bar, bonded in 1st pour
4. Debonded end, UNICOAT® coated
5. Dowel cap, compressible fill
6. UNISTOP® IEJ waterstop
7. UNISTOP® EEJ waterstop
8. Lean concrete / blinding

5 FORMING THE SEALING SLOT

Not to scale



Zip cut through 70% of the board thickness only. The uncut 30% holds the top strip in place and keeps concrete out of the slot.

UNIFLEX® PE is a natural bond breaker, so no bond breaker tape is needed under the sealant.

Illustrations only – not for construction. Refer to drawing UR-FL-01 / UR-FL-02.

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Installation Procedures

1 First Pour | 2 Cut & Zip Cut | 3 Fix Board & Second Pour | 4 Joint Sealing



Figure 1 – Zip strip pulled out



Figure 2 – Joint sealed

Step 1
FIRST POUR

Cast the first side of the joint (1st pour) against the formwork. When the concrete has hardened, remove the formwork. Check that the joint face is clean, sound and free of fins, protrusions and loose material, so that **UNIFLEX® PE** sits flat against it.

Step 2
CUT & ZIP CUT

Cut **UNIFLEX® PE** with a sharp knife to the slab thickness and to the length of the joint. Where dowel bars cross the joint, mark and punch the board for the dowels.

Then **"zip cut"** a top strip along the whole length of the board, at the depth required for the joint sealant. Cut through about **70%** of the board thickness only and leave the remaining **30%** uncut. The uncut part holds the strip in place and stops concrete slipping into the slot during the second pour.

Step 3
FIX BOARD & SECOND POUR

Fix the board against the hardened joint face to the full slab depth, with the top strip flush with the finished surface. Hold it in place with concrete nails, or spot bond it with **UNISTICK® CA** and allow the contact adhesive to set.

Cast the second side of the joint (2nd pour) against the board.

Step 4
JOINT SEALING

When the concrete has cured, pull the top strip out of the joint to leave a clean, uncontaminated sealing slot (Figure 1). Seal the joint with an appropriate sealant from the **UNISEAL®** range (Figure 2). Sealants do not bond to **UNIFLEX® PE**, so no bond breaker tape is needed.

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No.135B, Jalan Kip 8,
Kawasan Perindustrian Kepong
52200 Kuala Lumpur

(+60) 3-6734 7941
(+60) 10-785 1159

enquiry@unityreliance.com
https://www.unityreliance.com

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