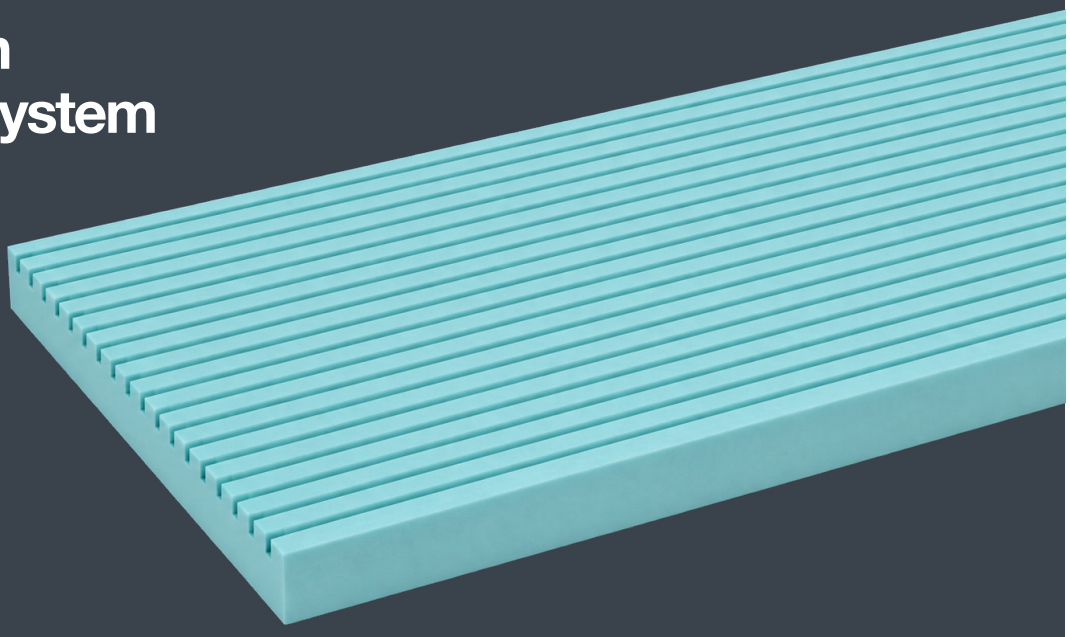
TECHNICAL DATA SHEET

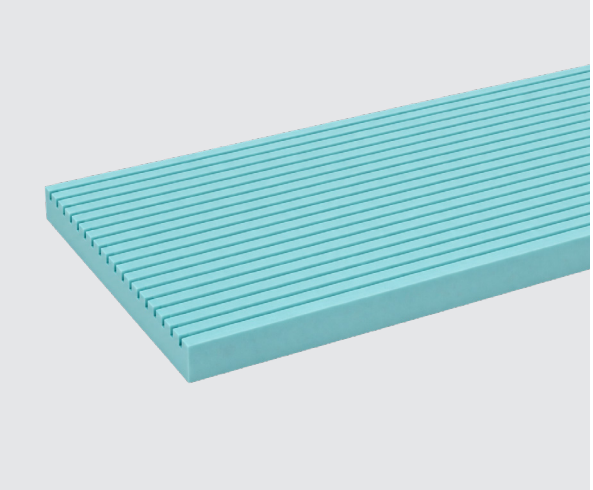
HYDROFLOW INSULATION

Cavity Drain Insulation System



PREMCRETE

HYDROFLOW INSULATION





DESCRIPTION

HYDROFLOW INSULATION is a 50mm deep, closed-cell insulation board made from rigid extruded polystyrene foam (xps) with shiplap edges. The product is manufactured in accordance with EN 13164 - “thermal insulation products for buildings - factory made products of extruded polystyrene (xps)-specification”. HYDROFLOW INSULATION is used to form a 50mm insulated spacer adjacent to the Hydrochannel with the Premcrete HYDROFLOW CAVITY DRAIN SYSTEM. The insulation boards are rated at 500kpa and feature specifically designed slots to the underside of the boards, that in combination with the perimeter channel of the Premcrete system for a fully drained supporting spacer below the HYDROFLOW HP20 membrane.

USES

- Used as an insulating spacer beneath Premcrete HYDROFLOW cavity drainage flooring membranes.
- Provides continuous insulation to the external envelope of below-ground structures, including those permanently situated within the water table.

ADVANTAGES

- Excellent thermal insulation characteristics with a very low coefficient of thermal conductivity
- Closed cell structure with no connecting capillaries resulting in extremely high resistance to water absorption and diffusion of water vapour
- High mechanical and compressive strength and high dimensional stability

TECHNICAL & PERFORMANCE PROPERTIES

Property	Test Method	Value
Thermal conductivity	EN2667	0.034 w/mk
Compressive strength	EN826	≥ 300 kpa
Compressive creep max 2% deflection	EN106	≥ 95 kpa
Longterm water absorption by total immersion	EN12087	≤ 0.7 Vol. %
Longterm water absorption by diffusion	EN12088	≤ 3 Vol. %
Water absorption by freeze thaw cycling	EN12091	≤ 1 Vol. %
Working temperature range	-	-50 to +75°c
Nominal density	EN1602	32 Kg/m^3

HYDROFLOW INSULATION

INSTALLATION PROCEDURE

Correct design - flotation risk

The Hydrochannel that the Insulated Spacer is placed adjacent to, can develop a maximum of 50mm of water pressure when at full capacity. To prevent flotation of the floor, the floor build up must exert a force that is greater than 50mm of water pressure. The weight is calculated by multiplying the density of the floor elements by the height of the floor elements. For example:

65mm of Screed

Screed density is 1.7. Multiply by the thickness:
1.7 x 65mm = 110mm. Weight of screed is twice the weight of the water pressure.

18mm of T&G Chipboard

Chipboard density is 0.65. Multiply by the thickness: 0.65 x 18mm = 11.7mm. Weight of chipboard is not enough. Hydroflow Insulation must be mechanically fixed. The Hydroflow Insulation is mechanically fixed to the slab/raft using Hydroflow Insulation Fixings, 5 fixings per board, one at 100mm in from each corner and one in the centre of the board.

Installation

The shrink film should be removed immediately before application of Hydroflow Insulation. Stagger boards and ensure that the drainage slots are lined up to allow for unhindered drainage. Cut to size with saw, knife or hot wire device.

PACKAGING & COVERAGE

Pack size

1250mm x 600mm x 50mm (6m^2 pack)

STORAGE & SHELF LIFE

The shelf life is identical to the life of the building into which the product is installed (estimated 50 years). Store in a cool, dry area inside original packaging on a flat, level surface.

HEALTH & SAFETY

Use appropriate PPE for the environment the system is installed within. Use products only as stated within this data sheet, the Material Safety Data Sheet and application guides. During the cutting of boards, always use respiratory protective masks and eye protection. See separate Material Safety Data Sheet.

ANCILLARY PRODUCTS



HYDROFLOW INSULATION FIXINGS
BOX OF 200

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