



# Technical Data Sheet

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Agrément Certificate  
No 08/4529 PRODUCT SHEET 2

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## HYDROSHIELD INSULATION SYSTEM

Ballast system  
Intensive roof



Ballast system  
Extensive roof



Ballast system  
50mm river washed pebbles



Ballast system  
50mm concrete slabs



The Axter Hydroshield<sup>®</sup> insulation system is a specially designed expanded polystyrene insulation with a water reducing membrane layer for use in an inverted roof with ballast application.

Axter Hydroshield<sup>®</sup>, with an appropriate supporting structure, can achieve an 'A+' rated in the Green Guide and is CFC/ HCFC free. Manufactured from expanded polystyrene without the use of any blowing agents, the Hydroshield EPS insulation has a zero ozone depletion potential (ODP) and a zero global warming potential (GWP).

## INSTALLATION

Hydroshield insulation boards are laid over a compatible and complete waterproofing system, generally starting at the point of access in a brick bond pattern. The boards are laid in an advancing front together with the Hydroshield water reducing layer to ensure the ballast is adequately distributed as soon as possible to protect the system.

The Hydroshield membrane must be laid and sealed with Hydroshield tape immediately after positioning the boards. Carefully seal around all penetrations and upstands.



Release one side of the Hydroshield tape and apply to the membrane ensuring full contact.



Ensure joints in the tape overlap. Pull back the top protective layer of the tape.



Pull and overlap the joints of the membrane to provide a minimum 150mm lap.



Ensure a full seal at all membrane laps and joints with pressure. Install ballast immediately.

## PRODUCT CHARACTERISTICS

Dimensions	Length	Width	Thickness
Hydroshield insulation board	1200mm	600mm	80mm to 600mm
Hydroshield membrane	50m	1.5m	
Hydroshield tape	24m	15mm	
Stickband 75 (for details)	10m	750mm	0.6mm

<b>TECHNICAL DATA General Requirements to BS EN 13163</b>		
Property	Class	Declared
Thermal conductivity		0.033 W/(m.K)
Length & width	L1 & W1	+/- 0.6% or +/- 3mm* <i>*whichever gives greatest numerical tolerance</i>
Thickness	T1	+/- 2mm
Squareness	S1	+/- 5mm per 1000mm
Flatness	P3	+/- 10mm per 1000mm
Dimensional stability under constant normal laboratory conditions 23°C, 50% relative humidity	DS (N) 5	+/- 0.5%
Dimensional stability under specified temperature and humidity conditions (23 +/-2) °C, (90 +/- 5)% relative humidity		Maximum 1%
Bending strength		250 kPa
Reaction to fire	Euroclass	Euroclass E

### Specific requirements to BS EN 13163

Compressive stress @ 10% deformation	CS (10) 200	Minimum 200 kPa
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### Additional properties BS EN 13163

Shear strength of 125 kPa correlated to bending strength requirement 250 kPa

Water vapour diffusion factor ( $\mu$ )	40 to 100
Water vapour permeability mg/ (Pa.h.m)	0.007 to 0.018

### Other information

Nominal Density 30 – 32 kg/m<sup>3</sup>

1% compressive strength – nominal 100 kPa

Dimensional tolerances are as stated above, unless otherwise specified on TDSO4

**The above material is a flame retardant grade**



For further information, please contact Axter Ltd  
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