Product Data Sheet

HYTHERM ULTRA XPS 300kPa

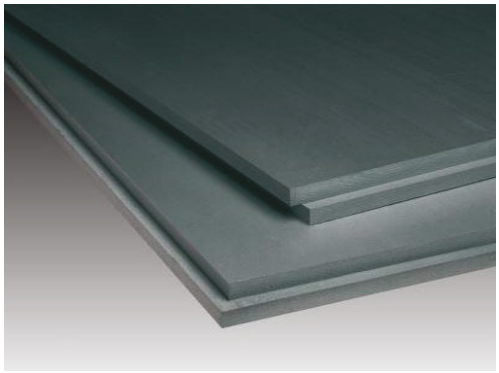
(Hytherm Ultra XPS)

Insulation - Inverted

High performance insulation for inverted roof constructions

Axter Hytherm Ultra XPS 300kPa is a high performance, flame retarded, extruded polystyrene XPS insulation board, for use on inverted flat roofs, green, brown and blue roofs and car parks.

The insulation boards are grey with a smooth skin on both surfaces and are used in conjunction with the Axter Water Flow Reducing Layer. Infra-red particles are finely dispersed and incorporated into the extruded cell walls. These lead to reduced heat transfer to keep a building warm in winter and cool in summer.



Use

Hytherm Ultra XPS 300kPa is designed for use as insulation on inverted roofs. Its low thermal conductivity minimises the board thickness required to achieve a specific U-value.

Certification

- Manufacturer's BBA certificate available.
- Environmental Product Declaration available.

Standard thicknesses and characteristics

Product name	Product code	Item thickness	Rd: m².K/W
Hytherm Ultra XPS 300kPa 70mm	UXPS/70	70	2.55
Hytherm Ultra XPS 300kPa 80mm	UXPS/80	80	2.98
Hytherm Ultra XPS 300kPa 100mm	UXPS/100	100	3.70
Hytherm Ultra XPS 300kPa 105mm	UXPS/105	105	3.85
Hytherm Ultra XPS 300kPa 130mm	UXPS/130	130	4.80
Hytherm Ultra XPS 300kPa 145mm	UXPS/145	145	5.35
Hytherm Ultra XPS 300kPa 175mm	UXPS/175	175	6.45
Hytherm Ultra XPS 300kPa 205mm	UXPS/205	205	7.55

1) Thickness dependent.
1 N/mm2 = 103 kPa = 1MPa

Durability

When properly installed, Hytherm Ultra XPS 300kPa boards have a service life similar to that of the building or structure.

Fire

Hytherm Ulta XPS 300kPa achieves Euroclass E, reaction-to-fire classification.

Hytherm Ultra XPS 300kPa contains a flame retardant additive to inhibit accidental ignition from a small fire source. However, it is combustible and if exposed to an intensive fire may burn rapidly. During shipment, storage, installation and use Hytherm Ultra XPS 300kPa should not be stored close to open flames or other ignition sources or come into contact with volatile organic compounds and chemicals such as solvents. During installation Hytherm Ultra XPS 300kPa products should be protected from direct exposure to fire.

Handling and storage

Hytherm Ultra XPS 300kPa must be stored be stored inside in original packaging, away from direct sunlight or heat sources.

Standard thicknesses & pack sizes

Board dimensions (mm)			Sales	Boards	M^2	M^3	Packs*	Minimum order quantity
Thickness	Length	Width	Unit	Per pack	Per pack	Per pack	Per PT	(MOQ)**
70	1250	600	Pack	6	4.5	0.315	48	Subject to a MOQ of 1431m^2
80	1250	600	Pack	5	3.75	20	48	-
100	1250	600	Pack	4	3	0.3	48	Subject to a MOQ of 1002m^2
105	1250	600	Pack	4	3	0.315	48	-
130	1250	600	Pack	3	2.25	0.293	56	-
145	1250	600	Pack	3	2.25	0.326	48	-
175	1250	600	Pack	2	1.5	0.263	56	-
205	1250	600	Pack	2	1.5	0.308	48	-

*Hytherm Ultra XPS 300kPa is packed on bearers in 2400 x 2500 x 2600mm bulk packs as standard.
**MOQ = Minimum order quantity. Products will be 100m^3 with a lead time of 4-6 weeks.

Technical properties

Properties[1]	Value		Unit	Standard	Designation code
Thermal conductivity declared[2]	0.027		W/m.K	BS EN 13164 : 2012+A1:2015	λ_D
Compressive stress or compressive strength at 10% deformation	300		kPa	BS EN 826:2013	CS(10\Y)
Modulus (typical values)	15	< 50mm	MPa	EN 826:2013	
	20	≥ 50mm			
Tensile strength	200	≥120mm	kPa	BS EN 1607:2013	TR
Compressive creep max after 50 years < 2% deformation under stress σC	110		kPa	BS EN 1606:2013	CC(2/1.5/50)σ
Long term water absorption by total immersion	0.7		%	BS EN 12087:2013	WL(T)
Long term water absorption by diffusion	2	< 80mm	%	BS EN 12088:2013	WD(V)
	1	≥ 80mm			
Additional water absorption after Freeze Thaw	1		%	BS EN 12091:2013	FTCD
Dimensional stability under specified temperature (70^{0}C) and humidity conditions (90%rh)	< 5		%	BS EN 1604:2013	DS(70,90)
Dimensional stability under specified compressive load (40kPa) and temperature (70^{0}C) conditions	< 5		%	BS EN 1605:2013	DS(2)5

Properties[1]		Value		Unit	Standard	Designation code
Coefficient of linear thermal expansion (typical value)		0.07		mm/(m.K)		
Reaction to fire classification		E		Euroclass	BS EN 13501-1:2018	
Temperature limits		-50 / +75		°C		
Tolerances	Thickness	-2/+3	70 - 120 mm	mm	EN 823:2013	T1
	Thickness	-2/+6	> 120 mm			
	Width	-3/+3				
	Length	-6/+6				
Edge profile		Ship lap				
Surface finish		With skin				

DESIGNATION CODE: T1CS(10\Y)300CC(2/1,5/50)110DS(70,90)DLT(2)5WL(T)0.7WD(V)1,2,32)FTCD1 -TR200

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