


ALGOPAN[®] XPS LC

PREFABRICATED SANDWICH PANEL

Thermal insulation: X-FOAM - EXTRUDED POLYSTYRENE PANEL GLUED WITH SLAB OF MINERALIZED WOOD WOOL BOUND CEMENT.

Support: OSB LAYER on air cavity

CHARACTERISTIC	STANDARD	UNIT	VALUES
OSB thickness		mm	10
AIR cavity		mm	60
MINERALIZED WOOD WOOL BOUND CEMENT thickness		mm	75
X-FOAM thickness	EN 823	mm	60 - 100
Thickness tolerance class (T2) Thickness from 60 mm to 100 mm	EN 823 EN 13164	mm	-1,5 /+1,5
Length	EN 822	mm	2000
Width	EN 822	mm	1200
Overall density X-FOAM		kg/m ³	31 ± 10%
Specific heat X-FOAM		J/kgK	1450
Overall density MINERALIZED WOOD WOOL BOUND CEMENT		kg/m ³	347 ± 10%
Specific heat MINERALIZED WOOD WOOL BOUND CEMENT		J/kgK	1810
Thermal conductivity MINERALIZED WOOD WOOL BOUND CEMENT	EN 13168	W/mK	0,065
Overall density OSB	EN 323	kg/m ³	600 ± 10%
Specific heat OSB		J/kgK	1700
Thermal conductivity OSB	EN 13986	W/mK	0,13
FINISHING			
Straight edges			
THERMAL CONDUCTIVITY AND THERMAL RESISTANCE			
Declared thermal conductivity X-FOAM			
Thickness 60 mm	EN 13164	W/mK	0,034
Thickness from 80 mm to 100 mm	EN 12667		0,035
Declared thermal resistance ALGOPAN XPS LC:			
Thickness (mm):	205 [60+75+(60)+10]	225 [80+75+(60)+10]	245 [100+75+(60)+10]
Thermal resistance (m ² K/W):	2,90	3,40	4,00
COMPRESSIVE STRESS AT 10 % DEFORMATION - σ_{10} OF THERMAL INSULATION X-FOAM			
Thickness from 60 mm to 100 mm	EN 826	kPa	≥ 200
DIMENSIONAL STABILITY AT SPECIFIED TEMPERATURE AND HUMIDITY CONDITIONS OF THERMAL INSULATION X-FOAM			
Condition test: (48±1) hours, (70±2)°C and (90± 5)% U.R.			
Changes in thickness, length and width	EN 1604	%	≤ 5
DEFORMATION BEHAVIOR OF THERMAL INSULATION X-FOAM			
Test condition: 70°C, 168 hours, 40 kPa	EN 1605	%	≤ 5
LONG TERM WATER ABSORPTION BY TOTAL IMMERSION (28 DAYS) OF THERMAL INSULATION X-FOAM			
Thickness from 60 mm to 100 mm	EN 12087	Vol. %	≤ 0,7
WATER ABSORPTION BY DIFFUSION (28 DAYS) OF THERMAL INSULATION X-FOAM			
Thickness from 60 mm to 100 mm	EN 12088	Vol. %	≤ 3
WATER VAPOUR DIFFUSION RESISTANCE FACTOR (μ)			
Thermal insulation X-FOAM			80
ALGOPAN XPS LC	EN 12086		> 80
FREEZE - THAW RESISTANCE OF THERMAL INSULATION X-FOAM			
Thickness from 60 mm to 100 mm	EN 12091	Vol. %	≤ 1
REACTION TO FIRE OF THERMAL INSULATION X-FOAM			
Reaction to fire	EN 13501-1	Euroclass	E
TEMPERATURE LIMIT USE OF THERMAL INSULATION X-FOAM			
Temperature limit use		° C	+ 75

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