


# X-FOAM® WR LC

PREFABRICATED SANDWICH PANEL

Thermal insulation: X-FOAM - EXTRUDED POLYSTYRENE PANEL WITHOUT SKIN GLUED WITH SLAB OF MINERALIZED WOOD WOOL BOUND CEMENT.

Support:

OSB LAYER on one side, FIR LAYER on the top side

CHARACTERISTIC	STANDARD	UNIT	VALUES
OSB thickness		mm	10
FIR thickness		mm	12
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/m³	31 ± 10%
Specific heat X-FOAM		J/kgK	1450
Overall density MINERALIZED WOOD WOOL BOUND CEMENT		kg/m³	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 FIR	EN 323	kg/m³	490 ± 10%
Specific heat FIR		J/kgK	1600
Thermal conductivity FIR	EN 13986	W/mK	0,13
Overall density OSB	EN 323	kg/m³	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 Thickness from 80 mm to 100 mm	EN 13164 EN 12667	W/mK	0,034 0,035
Declared thermal resistance X-FOAM WR LC:  Thickness (mm): Thermal resistance (m²K/W):			
167 [10+75+60+10+12]	187 [10+75+80+10+12]	207 [10+75+100+10+12]	
3,15	3,65	4,25	
COMPRESSIVE STRESS AT 10 % DEFORMATION - σ <sub>10</sub> 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 X-FOAM WR LC	EN 12086		80 > 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