


# ALGOCEM<sup>®</sup>

## PREFABRICATED SANDWICH PANEL

Thermal insulation: X-FOAM - EXTRUDED POLYSTYRENE PANEL WITHOUT SKIN  
Support on both side: CEMENT MORTAR LAYER WITH A GLASS FIBER NET

CHARACTERISTICS	STANDARD	UNIT	VALUES								
<b>SIZE</b>											
X-FOAM thickness	EN 823	mm	4 - 120								
CEMENT MORTAR thickness		mm	1 / 1,5								
Thickness tolerance class (T2)	EN 823 EN 13164	mm	Thickness < 50 mm								
			Thickness from 50 mm to 100 mm								
Length	EN 822	mm	1250 / 2500								
Width	EN 822	mm	600								
<b>TYPE FINISH</b>											
Straight edges											
<b>THERMAL CONDUCTIVITY AND THERMAL RESISTANCE X-FOAM</b>											
Declared thermal conductivity	EN 13164 EN 12667	W/mK	Thickness ≤ 30 mm								
			Thickness 40 mm								
			Thickness from 50 mm to 60 mm								
			Thickness from 80 mm to 100 mm								
			Thickness 120 mm								
			0,032								
			0,033								
			0,034								
			0,035								
			0,036								
<b>Thermal resistance ALGOCEM:</b>											
Thickness (mm):	4	6	10	20	30	40	50	60	80	100	120
Thermal resistance (m <sup>2</sup> K/W):	0,10	0,15	0,30	0,60	0,90	1,20	1,45	1,75	2,25	2,85	3,30
<b>COMPRESSIVE STRESS AT 10% DEFORMATION - <math>\sigma_{10}</math></b>											
Compressive strength	EN 826	kPa	≥ 200								
Thickness from 25 mm to 100 mm											
<b>DIMENSIONAL STABILITY AT SPECIFIED TEMPERATURE AND HUMIDITY CONDITIONS</b>											
Condition test: (48±1) hours, (70±2)°C and (90± 5)% U.R.	EN 1604	%	≤ 5								
Changes in thickness, length and width											
<b>DEFORMATION BEHAVIOR</b>											
Test condition: 70°C, 168 hours, 40 kPa	EN 1605	%	≤ 5								
<b>LONG TERM WATER ABSORPTION BY TOTAL IMMERSION (28 DAYS)</b>											
Thickness from 25 mm to 100 mm	EN 12087	Vol. %	≤ 0,7								
<b>WATER ABSORPTION BY DIFFUSION (28 DAYS)</b>											
Thickness from 25 mm to 50 mm	EN 12088	Vol. %	≤ 5								
Thickness from 60 mm to 100 mm			≤ 3								
<b>WATER VAPOUR DIFFUSION RESISTANCE FACTOR (<math>\mu</math>)</b>											
Thickness from 25 mm to 100 mm	EN 12086		80								
<b>FREEZE - THAW RESISTANCE</b>											
Thickness from 25 mm to 100 mm	EN 12091	Vol. %	≤ 1								
<b>REACTION TO FIRE</b>											
Reaction to fire	EN 13501-1	Euroclass	E								
<b>TEMPERATURE LIMIT USE</b>											
Temperature limit use		° C	+ 75								