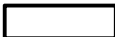


GIBITEC® ES

PREFABRICATED SEMI-SANDWICH PANEL

Thermal insulation: X-FOAM - EXTRUDED POLYSTYRENE PANEL WITHOUT SKIN

Support on one side: PLASTERBOARD SHEET

CHARACTERISTIC				STANDARD	UNIT	VALUES			
Plasterboard thickness					mm	13 (or 10)			
X-FOAM thickness				EN 823	mm	20 - 100			
Thickness tolerance class (T2) Thickness from 20 mm to 100 mm				EN 823 EN 13164	mm	-1,5 /+1,5			
Length				EN 822	mm	3000 / 2000			
Width				EN 822	mm	1200			
Overall density X-FOAM					kg/m³	31 ± 10%			
Specific heat X-FOAM					J/kgK	1450			
Overall density PLASTERBOARD				UNI EN 520	kg/m³	810 ± 10%			
Specific heat PLASTERBOARD				UNI EN 1045	J/kgK	1000			
Specific heat PLASTERBOARD				UNI 10351-94	W/mK	0,25			
FINISHING									
Straight edges									
THERMAL CONDUCTIVITY AND THERMAL RESISTANCE									
Declared thermal conductivity X-FOAM				EN 13164 EN 12667	W/mK	0,032 0,033 0,034 0,035			
Thickness from 20 mm to 30 mm									
Thickness 40 mm									
Thickness from 50 mm to 60 mm									
Thickness from 80 mm to 100 mm									
Declared thermal resistance GIBITEC ES (EN 13164 / EN13950)									
Thickness (mm):		20+13	30+13	40+13	50+13	60+13	80+13	100+13	
Thermal resistance (m²K/W):		0,65	0,95	1,25	1,50	1,80	2,30	2,90	
COMPRESSIVE STRESS AT 10 % DEFORMATION - σ ₁₀ OF THERMAL INSULATION X-FOAM									
Thickness from 20 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 20 mm to 100 mm				EN 12087	Vol. %	≤ 0,7			
WATER ABSORPTION BY DIFFUSION (28 DAYS) OF THERMAL INSULATION X-FOAM									
Thickness from 20 mm to 50 mm				EN 12088	Vol. %	≤ 5			
Thickness from 60 mm to 100 mm						≤ 3			
WATER VAPOUR DIFFUSION RESISTANCE FACTOR (μ)									
Thermal insulation X-FOAM				EN 12086		80			
GIBITEC ES						> 80			
FREEZE - THAW RESISTANCE OF THERMAL INSULATION X-FOAM									
Thickness from 20 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			