


# X-FOAM<sup>®</sup> HBD

## EXTRUDED POLYSTYRENE PANEL (XPS) [WITHOUT HCFC - WITHOUT HFC]

CHARACTERISTICS	STANDARD	UNIT	VALUES			
<b>SIZE</b>						
Thickness	EN 823	mm	30 - 100			
Thickness tolerance class (T1)	EN 823 EN 13164	mm	Thickness < 50 mm -2 /+2			
Thickness from 50 mm to 100 mm			-2 /+3			
Length	EN 822	mm	1250			
Width	EN 822	mm	600			
<b>TYPE FINISH</b>						
Straight edges		Panel with skin surface				
<b>THERMAL CONDUCTIVITY AND THERMAL RESISTANCE</b>						
Declared thermal conductivity	EN 13164 EN 12667	W/mK	Thickness 30 mm 0,032			
Thickness 40 mm			0,033			
Thickness from 50 mm to 60 mm			0,034			
Thickness from 80 mm to 100 mm			0,035			
<b>Thermal resistance (EN 13164)</b>						
Thickness (mm):	30	40	50	60	80	100
Thermal resistance (m <sup>2</sup> K/W):	0,90	1,20	1,45	1,75	2,25	2,85
<b>COMPRESSIVE STRESS AT 10% DEFORMATION - <math>\sigma_{10}</math></b>						
Compressive strength	EN 826	kPa	Thickness from 30 mm to 100 mm $\geq 300$			
<b>COMPRESSIVE STRESS AT 2% DEFORMATION AFTER 50 YEARS</b>						
Thickness from 30 mm to 100 mm	EN 1606	kPa	120			
<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	%	$\leq 5$			
Changes in thickness, length and width						
<b>DEFORMATION BEHAVIOR</b>						
Test condition: 70°C, 168 hours, 40 kPa	EN 1605	%	$\leq 5$			
<b>LONG TERM WATER ABSORPTION BY TOTAL IMMERSION (28 DAYS)</b>						
Thickness from 30 mm to 100 mm	EN 12087	Vol. %	$\leq 0,7$			
<b>WATER ABSORPTION BY DIFFUSION (28 DAYS)</b>						
Thickness from 30 mm to 50 mm	EN 12088	Vol. %	$\leq 5$			
Thickness from 60 mm to 100 mm			$\leq 3$			
<b>WATER VAPOUR DIFFUSION RESISTANCE FACTOR (<math>\mu</math>)</b>						
Thickness 30 mm	EN 12086		150			
Thickness from 40 mm to 100 mm			100			
<b>FREEZE - THAW RESISTANCE</b>						
Thickness from 30 mm to 100 mm	EN 12091	Vol. %	$\leq 1$			
<b>REACTION TO FIRE</b>						
Reaction to fire	EN 13501-1	Euroclass	E			
<b>TEMPERATURE LIMIT USE</b>						
Temperature limit use		°C	+ 75			