


# X-FOAM<sup>®</sup> WAFER

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

CARACTERISTICS	STANDARD	UNIT	VALUES														
<b>SIZE</b>																	
Thickness	EN 823	mm	20* - 300														
Thickness tolerance class (T2)	EN 823 EN 13164	mm	Thickness < 50 mm														
Thickness from 50 to 120 mm			-1,5 /+1,5														
Thickness > 120 mm			-1,5 /+1,5														
Length	EN 822	mm	1250														
Width	EN 822	mm	600														
<b>TYPE FINISH</b>																	
Straight edges		Panel with wafer surface															
<b>THERMAL CONDUCTIVITY AND THERMAL RESISTANCE</b>																	
Declared thermal conductivity	EN 13164 EN 12667	W/mK	Thickness from 20 mm to 30 mm														
Thickness from 40 mm			0,032														
Thickness from 50 mm to 60 mm			0,033														
Thickness from 80 mm to 100 mm			0,033														
Thickness 120 mm			0,035														
Thickness from 140 mm to 180 mm			0,034														
Thickness from 200 mm to 300 mm			0,035														
Thermal resistance (EN 13164)																	
Thickness (mm):	20	30	40	50	60	80	100	120	140	160	180	200	220	240	260	280	300
Thermal resistance (m <sup>2</sup> K/W):	0,60	0,90	1,20	1,50	1,80	2,25	2,85	3,40	4,15	4,70	5,25	5,75	6,30	6,85	7,45	8,00	8,55
<b>COMPRESSIVE STRESS AT 10% DEFORMATION - <math>\sigma_{10}</math></b>																	
Thickness from 20 mm to 40 mm	EN 826	kPa	$\geq 200$														
Thickness from 50 mm to 300 mm			$\geq 250$														
<b>TENSILE STRENGTH PERPENDICULAR TO FACES</b>																	
Thickness from 20 mm to 300 mm	EN 1607	kPa	$\geq 600$														
<b>DIMENSIONAL STABILITY AT SPECIFIED TEMPERATURE AND HUMIDITY CONDITIONS</b>																	
Condition test: (48 $\pm$ 1) hours, (70 $\pm$ 2) $^{\circ}$ C and (90 $\pm$ 5)% U.R.	EN 1604	%	$\leq 5$														
Changes in thickness, length and width																	
<b>DEFORMATION BEHAVIOR</b>																	
Test condition: 70 $^{\circ}$ 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 300 mm	EN 12087	Vol. %	$\leq 0,7$														
<b>WATER ABSORPTION BY DIFFUSION (28 DAYS)</b>																	
Thickness from 20 mm to 50 mm	EN 12088	Vol. %	$\leq 5$														
Thickness from 60 mm to 300 mm			$\leq 3$														
<b>WATER VAPOUR DIFFUSION RESISTANCE FACTOR (<math>\mu</math>)</b>																	
Thickness from 20 mm to 300 mm	EN 12086		80														
<b>FREEZE - THAW RESISTANCE</b>																	
Thickness from 20 mm to 300 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		$^{\circ}$ C	+ 75														