



# X- FOAM LMF

EXTRUDED POLYSTYRENE BOARD  
[XPS - without HCFC - without HFC]



**X-FOAM® LMF** is a thermal insulation sheet made of indigo-coloured single-layer extruded polystyrene, with extrusion skin and 4 straight edges. The sheets declare compressive strength values  $\geq 500$  kPa, and have a width of 600 mm, length of 1250 mm and thicknesses available from 50 to 100 mm. **X-FOAM® LMF** is fire classified EUROCLASS E according to the European standard EN 13501-1. **X-FOAM® LMF** complies with the Minimum Environmental Criteria (CAM).

**APPLICATION WITH X-FOAM® LMF:** hollow wall



CHARACTERISTIC	STANDARD	UNIT	VALUES
Thicknesses	EN 823	mm	30 - 100
Thickness tolerances	EN 823 EN 13164	mm	T1 -2/+2 -2/+3
Length	EN 822	mm	2800
Width	EN 822	mm	600
Length (l) and width (b) tolerances	EN 822 EN 13164	mm	l o b $\leq$ 1500: +/- 8 l o b > 1500: +/- 10
Orthogonality tolerance (Sb)	EN 824 EN 13164	mm/m	5
Flatness tolerance (Smax)	EN 825 EN 13164	mm/m	6
Density		kg/m <sup>3</sup>	31 +/- 10%
Average closed cell		%	>96
Specific heat		J/kgK	1450
Dimensional stability at 70°C and 90% RH Changes in thickness, length and width	EN 1604	%	$\leq 5 - DS(70,90)$

CHARACTERISTIC	STANDARD	UNIT	VALUES	
<b>Thermal conductivity (<math>\lambda_D</math>) and Thermal resistance (<math>R_D</math>)</b>			$\lambda_D$	$R_D$
Thickness 30 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,031	0,97
Thickness 40 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,032	1,25
Thickness 50 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,033	1,52
Thickness 60 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,033	1,82
Thickness 80 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,034	2,35
Thickness 100 mm	EN 13164 EN 12667	$\lambda_D$ : W/mK $R_D$ : m <sup>2</sup> K/W	0,034	2,94
<b>Compressive stress at 10 % deformation</b> Thickness from 20 to 40 mm Thickness from da 50 to 60 mm Thickness from 80 to 100 mm	EN 826	kPa	$\geq 200$ – CS(10/Y)200 $\geq 250$ – CS(10/Y)250 $\geq 300$ – CS(10/Y)300	
<b>Deformation behavior. Condition test 70° C, 168 h, 40 kPa</b>	EN 1604	%	$\leq 5$ – DLT(2)5	
<b>Water absorption by immersion (28 days)</b>	EN 12087	Vol %	$\leq 0,7$ – WL(T)0,7	
<b>Water absorption by diffusion (28 days)</b>	EN 12088	Vol %	$\leq 3\%$ – WD(V)3 sp.< 60 $\leq 2\%$ – WD(V)2 sp. 60 $\leq 1\%$ – WD(V)1 sp.> 60	
<b>Resistance to water vapor diffusion (<math>\mu</math>)</b> Th. 50 mm to 100 mm	EN 12086		MU 150 MU 100	
<b>Frost behavior (freeze - thaw alternation) after water absorption by long-term diffusion</b>	EN 12091	Vol %	$\leq 1$ – FTCD1	
<b>Reaction to fire</b>	EN 13501-1	Euroclasse	E	
<b>Limit temperature of use</b>		°C	75	
<b>Closed cell average</b>		%	> 96	
<b>VOC (Volatile Organic Compounds)</b>	EN 16516 / ISO 16000	Class/Protocol	A+, Leed, Well, Breeam	

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