

Orstech LSP PYRO

(TECH Lamella Mat 2.3 Alu2)
Lamella mat



PRODUCT DESCRIPTION

Lamella mat Orstech LSP PYRO consists of mineral wool lamellas which have been glued to aluminium foil reinforced with a glass fibre grid, and these fibres are predominantly perpendicular to the surface of the mat. Compressive strength, but thermal conductivity too, are increased compared to mats with a fibre orientation parallel to the surface.



APPLICATION

Lamella mat Orstech LSP PYRO is suitable for piping, appliances and vessels (both ends and cylindrical parts), residential heating systems and air ducts. It is also part of fire resistant ductwork system Orstech Protect (EI 60 S according EN 1366-1), details are available in system data sheet.

Despite the fact that hydrophobing additives in the insulation impede the ingress of water, it is necessary to protect lamella mat in the construction against moisture and possible mechanical damage by a proper manner.

Orstech LSP PYRO has a maximum service temperature of 600 °C according to EN 14706. Surface temperature on the aluminium side must not exceed 100 °C; proper thickness of insulation must be designed to fulfil that. Binders and greasing agents in mineral wool products dissolve and evaporate in areas with temperatures > 150 °C. In the outer, colder areas, no dissolution and evaporation take place.

BENEFITS

- Lamella mat Orstech LSP PYRO thickness 40 and 50 mm is part of fire resistant ductwork system Orstech Protect according to EN 1366-1 with classification EI 60 S (circular duct type A – fire scenario outside).
- Easy to handle, easy to cut with a sharp knife.
- Fast installation.
- Increased compressive strength – no need of supporting construction for metal steel jacketing.
- AS quality – suitable for use over stainless steel.

PACKAGING, TRANSPORT, WAREHOUSING

The product is supplied as free rolls or palletized. Material has to be transported and stored under such conditions to avoid moistening or other degradation.

DIMENSIONS AND PACKAGING

Thickness [mm]	Dimensions [mm]	Per package [m ²]	Rolls / Package [pcs]	Package/ Pallet [pcs]	Quantity per pallet [m ²]
30	1000 × 5000	5.0	1	21	105.0
40	1000 × 4000	4.0	1	21	84.0
50	1000 × 3000	3.0	1	21	63.0
60	1000 × 3000	3.0	1	21	63.0
80	1000 × 2000	2.0	1	21	42.0
100	1000 × 2000	2.0	1	21	36.0

TECHNICAL PARAMETERS

Parameter	Unit	Value					Standard			
Thermal technical properties										
Declared value of the thermal conductivity coefficient λ_D according to EN ISO 13787	°C	50	100	150	200	250	300	400	500	600
	W·m ⁻¹ ·K ⁻¹	0.046	0.056	0.069	0.084	0.103	0.125	0.180	0.251	0.340
Measured value of the thermal conductivity coefficient according to EN 12667*	W·m ⁻¹ ·K ⁻¹	0.043	0.052	0.063	0.076	0.092	0.111	0.157	0.215	0.290
Maximum service temperature ST(+) / on the aluminium side	°C	600 / max. 100					EN 14706			
Specific heat capacity c_p *	J·kg ⁻¹ ·K ⁻¹	800					-			
Physical properties										
Density*	kg·m ⁻³	65					EN 13470			
Short-term water absorption (W_p) WS	kg·m ⁻²	<< 1					EN ISO 29767			

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Parameter			Unit	Value			Standard		
Fire safety properties									
Reaction to fire			-	A1			EN 13501-1		
Melting temperature t_i^*			°C	≥ 1 000			DIN 4102 part 17		
Acoustic properties									
The practical sound absorption coefficient α_p according to EN ISO 354 and EN ISO 11654*	Frequency		Hz	125	250	500	1 000	2 000	4 000
	Thickness	30	mm	0.10	0.25	0.60	0.85	0.90	0.95
		50	mm	0.15	0.50	0.90	0.95	0.95	1.00
		80	mm	0.30	0.85	1.00	1.00	1.00	1.00
		100	mm	0.40	1.00	1.00	1.00	1.00	1.00
Definition of single numerical value according to EN ISO 11654*	Weighted sound absorption coefficient		-	α_w		Absorption class			
	Thickness	30	mm	0.60 (MH)			C		
		50	mm	0.80 (H)			B		
		80	mm	1.00			A		
		100	mm	1.00			A		

* Informative non-declared value beyond scope of CPR, obtained by concrete tests.

More about the product

www.isover.cz/en/products/orstech-lsp-pyro



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