

Isover ML-3

Lamella mat



Specification code: MW – EN 14303 – T5 – ST(+)-250

TECHNICAL SPECIFICATION

Lamella mats ML-3 consist of glass 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. The production is based on the defibering of molten raw materials consisting of minerals and different amounts of artificial resins as binders, mineral oils for dust suppression and hydrophobic means dependent on the application. Fibres are hydrophobic according to EN 1609.

APPLICATION

Lamella mats Isover ML-3 are suitable for piping, appliances and vessels (both ends and cylindrical parts), residential heating systems and air ducts. For outdoor application metal steel jacketing is required. When exposure to high temperatures and long-term dynamic loads (vibrations), wired mats Orstech DP are recommended instead of lamella mats.

ML-3 has a maximum service temperature of 250 °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.

PACKAGING, TRANSPORT, WAREHOUSING

Lamella mats ML-3 are wrapped into PE foil. They must be transported in covered vehicles under such conditions to avoid moistening or other degradation. They must be stored in covered places, horizontally, piled on top of each other.

BENEFITS

- very good thermal insulation performance (low thermal conductivity)
- fire resistance – non-combustible material
- very good sound attenuation (high absorption coefficient)
- environmental friendly and hygienic
- hydrophoby – ISOVER insulation materials are made water repellent
- long life span (material is not aging)
- resistant to wood-destroying pests, rodents, and insect
- easy to handle, easy to cut with a sharp knife

RELATED DOCUMENTS

- EC Certificate of conformity 1486-CPD-0264

DIMENSIONS AND PACKAGING

Product	Thickness (mm)	Dimensions (mm)		Per package (m ²)
		width (mm)	length (mm)	
Isover ML-3 (VENTILAM ALU)	20	2 x 600	12 000	14.40
	30		8 000	9.60
	40		6 000	7.20
	50		5 000	6.00
	60		4 000	4.80
	80		3 000	3.60
	100		2 500	3.00

TECHNICAL PARAMETERS

Parameter	Unit	Value				Standard		
THERMAL INSULATING PROPERTIES								
Thermal conductivity coefficient λ according to EN 12667	°C	10	40	100	150	200	250	
	Wm ⁻¹ K ⁻¹	0.038	0.043	0.058	0.076	0.091	0.109	
Specific heat capacity c_p	J.kg ⁻¹ .K ⁻¹	840				-		
Maximum service temperature / on the aluminium side	°C	250 / max. 100				EN 14706		
PHYSICAL PROPERTIES								
Density	kg.m ⁻³	25				EN 1602		
Short term water absorption W_p	kg.m ⁻²	<< 1				EN 1609		
Equivalent diffusion thickness of the aluminium foil s_d	m	> 100				EN 12086		
FIRE SAFETY PROPERTIES								
Reaction to fire	-	A2-s1, d0				EN 13501-1		

21. 3. 2013 The information is valid up to date of publishing. The manufacturer reserves right to change the data.