

TECH Wired Mat MT 5.1

Wired mat



PRODUCT DESCRIPTION

Tech Wired Mat MT 5.1 is a lightly bonded stone wool mat stitched on galvanised wire mesh using galvanised wire. On request for temperatures higher than 400 °C and/or for stainless steel pipes/ surfaces it is possible to produce mats with stainless steel wire and galvanised mesh (Tech Wired Mat MT 5.1 X) or with stainless steel wire and stainless steel mesh (Tech Wired Mat MT 5.1 X-X); all combinations according to EN 10223-2.



APPLICATION

The wired mat is suitable for thermal and acoustic insulation of industrial applications reaching very high temperatures, such as industrial pipe work, boiler walls, furnaces, smoke ducts, appliances and vessels (both ends and cylindrical parts). Despite the fact that hydrophobing additives in the insulation impede the ingress of water, it is necessary to protect wired mat in the construction against moisture and possible mechanical damage by a proper manner.

Tech Wired Mat MT 5.1 has a maximum service temperature of 660 °C according to EN 14706. 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

- Approval certificate ASTM C592 Type III.
- Excellent insulation performance.
- Very high temperature operation (up to 660 °C MST).
- AS quality – suitable for use over stainless steel.

PACKAGING, TRANSPORT, WAREHOUSING

The product is supplied 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 × 6000	6.0	1	21	126.0
40	1000 × 5000	5.0	1	21	105.0
50	1000 × 4000	4.0	1	21	84.0
60	1000 × 3000	3.0	1	21	63.0
70*	1000 × 2500	2.5	1	21	52.5
80	1000 × 2500	2.5	1	21	52.5
90*	1000 × 2000	2.0	1	21	42.0
100	1000 × 2000	2.0	1	21	42.0

On request it is possible to insert the aluminium foil between insulation and wire mesh (ALU facing). Wired mat with width 500 mm on request.

*Minimal volume need to be consulted with a customer service.

TECHNICAL PARAMETERS

Parameter	Unit	Value										Standard
Thermal technical properties												
Declared value of the thermal conductivity coefficient λ_p according to EN ISO 13787	°C	50	100	150	200	250	300	400	500	600	660	
	W·m ⁻¹ ·K ⁻¹	0.039	0.045	0.053	0.061	0.070	0.081	0.106	0.137	0.175	0.202	
Maximum service temperature ST(+)/ on the aluminium side	°C	660 / max. 100										EN 14706
Specific heat capacity c_p *	J·kg ⁻¹ ·K ⁻¹	800										-

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TECHNICAL PARAMETERS

Parameter	Unit	Value	Standard	
Physical properties				
Density*	kg·m ⁻³	100	EN 13470	
Short-term water absorption (W _p) WS	kg·m ⁻²	<< 1	EN ISO 29767	
Longitudinal air-flow resistance ξ^*	kPa·s·m ⁻²	> 65	EN ISO 9053-1	
Fire safety properties				
Reaction to fire	-	A1	EN 13501-1	
Melting temperature t_m^*	°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	40	mm	0.15 0.65 1.00 1.00 0.95 0.95
		60	mm	0.35 0.95 1.00 1.00 0.95 0.95
		80	mm	0.45 1.00 1.00 1.00 1.00 1.00
		100	mm	0.60 1.00 1.00 1.00 1.00 1.00
Definition of single numerical value according to EN ISO 11654*	Weighted sound absorption coefficient	-	a_w Absorption class	
	Thickness	40	mm	0.95 A
		60	mm	1.00 A
		80	mm	1.00 A
		100	mm	1.00 A

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

1/11/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.