

Orstech DP 80

Wired mat



PRODUCT DESCRIPTION

Orstech DP 80 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 (Orstech DP 80 X) or with stainless steel wire and stainless steel mesh (Orstech DP 80 X-X); all combinations according to AGI Q 132 and EN 10223-2.



APPLICATION

The wired mat is suitable for thermal and acoustic insulation of industrial applications reaching 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.

Orstech DP 80 has a maximum service temperature of 640 °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

- Quality certificate according to VDI 2055 – annual audit testing by FIW Munich from year 2000.
- Insulation material designation code according to AGI Q 132: 10.01.02.40.08
- Very good insulation performance.
- High temperature operation (up to 640 °C MST).
- 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 ¹⁾ [mm]	Dimensions [mm]	Per package [m ²]	Rolls / Package [pcs]	Package/ Pallet [pcs]	Quantity per pallet [m ²]
40	2 × 500 × 5000	5.0	2	21	105.0
50	2 × 500 × 4000	4.0	2	21	84.0
60	2 × 500 × 2500	2.5	2	21	52.5
70*	2 × 500 × 2500	2.5	2	21	52.5
80	2 × 500 × 2500	2.5	2	21	52.5
90*	2 × 500 × 2000	2.0	2	21	42.0
100	2 × 500 × 2000	2.0	2	21	42.0
120*	2 × 500 × 2000	2.0	2	18	36.0

On request it is possible to insert the aluminium foil between insulation and wire mesh (ALU facing). Wired mat with width 1000 mm on request (not possible in case of wired mats with stainless steel mesh). ¹⁾ Thickness has been measured under the load of 1000 Pa. When mounting wired mats, the thickness can therefore be higher than the nominal mounted thickness. This has to be taken into account if metal steel jacketing is pre-ordered.

*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_D according to EN ISO 13787	°C	50	100	150	200	250	300	400	500	600	640		
	W·m ⁻¹ ·K ⁻¹	0.041	0.047	0.055	0.065	0.076	0.089	0.118	0.155	0.201	0.220		
Measured value of the thermal conductivity coefficient according to EN 12667*	W·m ⁻¹ ·K ⁻¹	0.039	0.046	0.053	0.061	0.071	0.081	0.106	0.138	0.177	0.196		
Maximum service temperature ST(+) / on the aluminium side	°C	640 / 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	80			EN 13470		
Short-term water absorption (<i>W_p</i>) WS			kg·m ⁻²	<< 1			EN ISO 29767		
Longitudinal air-flow resistance Ξ^*			kPa·s·m ⁻²	> 45			EN ISO 9053-1		
Fire safety properties									
Reaction to fire			-	A1			EN 13501-1		
Melting temperature <i>t_i</i> [*]			°C	≥ 1 000			DIN 4102 part 17		
Acoustic properties									
The practical sound absorption coefficient <i>a_p</i> 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	0.60	1.00	1.00	0.95	1.00
		60	mm	0.35	1.00	1.00	1.00	1.00	1.00
		80	mm	0.50	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		-	<i>a_w</i>		Absorption class			
	Thickness	40	mm	0.90		A			
		60	mm	1.00		A			
		80	mm	1.00		A			
		100	mm	1.00		A			
Classification according to AGI Q 132									
Insulation material designation code			-	10.01.02.40.08			AGI Q 132		

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

More about the product

www.isover.cz/en/products/orstech-dp-80



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