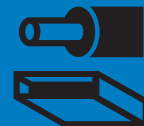


ORSTECH DP 100

Wired mat



Specification code: MW – EN 14303 – T2 – ST 660 – WS1 – CL10

TECHNICAL SPECIFICATION

Wired mats ORSTECH DP 100 are bonded mineral wool webs that are quilted to a wire mesh. 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. The wire mesh and the quilting wire are standardly made of galvanised steel, on request also possible to made of stainless steel.

Behaviour with stainless austenitic steels – product is made in AS quality according to AGI Q 132, EN 13468 and ASTM C 795. Fibres are hydrophobic according to EN 1609.

APPLICATION

Wired mats are suitable for piping, appliances and vessels (both ends and cylindrical parts), residential heating systems, air ducts and mattresses. On request for temperatures higher than 400 °C it is possible to produce mats with stainless steel wire and galvanized mesh (marking ORSTECH DP 100 X) or with stainless steel wire and stainless steel mesh (marking ORSTECH DP 100 X-X); all combinations according to EN 10223-2. It is also possible to add aluminium foil under mesh as a protection against dust. For outdoor application metal steel jacketing is required. When exposure to combustion products or condensate or in case of long-term dynamic loads (vibrations), the complete system must be examined regarding functionality and durability. In this case and for application at higher temperatures than 500 °C, it is necessary to obtain manufacturer's consent confirming proper use.

ORSTECH DP 100 has a maximum service temperature of 660 °C according to EN 14706. If the wire mat is with an aluminium facing then the surface temperature must not exceed 100 °C on the facing;

DIMENSIONS AND PACKAGING

Product	Thickness (mm)	Dimensions (mm)	Per package (m ²)
ORSTECH DP 100	30*	6000 x 500	3.0
ORSTECH DP 100	40*	5000 x 500	2.5
ORSTECH DP 100	50	4000 x 500	2.0
ORSTECH DP 100	60	4000 x 500	2.0
ORSTECH DP 100	70	3000 x 500	1.5
ORSTECH DP 100	80	3000 x 500	1.5
ORSTECH DP 100	100	3000 x 500	1.5
ORSTECH DP 100	120*	3000 x 500	1.5

Additional marking of the facing inserted between insulation and wire mesh: KOMFORT – polyester tissue (non-woven polyester fibre fabric facing), ALU – aluminium foil facing reinforced with a glass fibre grid. Thickness tolerance according to EN 823: -5 mm, +5 mm. * Minimal volume need to be consulted with a producer.

TECHNICAL PARAMETERS

Parameter	Unit	Value										Standard
THERMAL INSULATING 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	650	
	Wm ⁻¹ .K ⁻¹	0.041	0.048	0.055	0.064	0.074	0.085	0.111	0.145	0.190	0.218	
Measured value of the thermal conductivity coefficient according to EN 12667	Wm ⁻¹ .K ⁻¹	0.038	0.044	0.051	0.058	0.066	0.075	0.096	0.123	0.157	0.177	
Maximum service temperature / on the facing	°C	660 / max. 100										EN 14706
Specific heat capacity c_p	J.kg ⁻¹ .K ⁻¹	800										-
PHYSICAL PROPERTIES												
Density	kg.m ⁻³	100										EN 1602, EN 13470
Short term water absorption W_p	kg.m ⁻²	<< 1										EN 1609
Diffusion resistance factor of mineral wool without a facing μ	-	1.3										EN 12086
Flow resistance Ξ	kPa.s.m ⁻²	84 (tl. 100 mm)										EN 29053
FIRE SAFETY PROPERTIES												
ORSTECH DP 100, DP 100 KOMFORT: Reaction to fire	-	A1										EN 13501-1
ORSTECH DP 100 ALU: Reaction to fire	-	A2-s1, d0										EN 13501-1
Combustibility class	-	A1										DIN 4102
Flame spread index i_s	mm.min ⁻¹	0.00										ČSN 73 0863
Melting temperature t_t	°C	≥ 1000										DIN 4102 part 17
CLASSIFICATION ACCORDING TO AGI Q 132												
Insulation material designation code	-	10.01.03.66.10										AGI Q 132

8. 8. 2011 The information is valid up to date of publishing. The manufacturer reserves right to change the data.

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. For temperatures higher than 400 °C it is possible to offer wired mat quilted with stainless wire and galvanized mesh or with stainless wire and stainless mesh, according to AGI Q 132. Insulation material designation code according to AGI Q 132: 10.01.03.66.10.

PACKAGING, TRANSPORT, WAREHOUSING

Wired mats ORSTECH DP 100 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
- high temperature resistance (possibility of application up to a maximum surface temperature of 660 °C)
- very good sound attenuation (high absorption coefficient)
- environmental friendly and hygienic
- hydrophobicity – 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 1390-CPD-0313/11/P
- German certificate: ORSTECH DP100, 6V052, DIN CERTCO Gesellschaft für Konformitätsbewertung mbH