

ProRox® Product Catalogue



ProRox WM 960

Heavy duty wired mat



Dimensions

Standard Width: 600 mm		Standard Width: 1200 mm	
Thickness (mm)	Length (mm)	Thickness (mm)	Length (mm)
30	8000	30	8000
40	6000	40	6000
50	5000	50	5000
60	4000	60	4000
75	4000	75	4000
80	3000	80	3000
100	3000	100	3000
120	3000	120	3000

Applications

ProRox WM 960 is a lightly bonded heavy duty stone wool mat stitched on galvanised wired mesh with galvanised wire. The wired mat is especially suitable for industrial applications such as high-pressure steam pipes, reactors, furnaces, etc. where high demands are made on the temperature resistance of the insulation. Stainless steel mesh, stainless steel binding wire and/or aluminium foil facing are available upon request.

Compliance

ProRox WM 960 Wired Mats fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.02, ASTM C592 Type I, II, III and IS 8183.

Installation Guidelines

Assembly

Cut the wired mat to length, so that the mat fits the pipe with slight pre-stressing. The closing joints must be staggered at an angle of at least 30 degrees to each other. The closing joints of the mats (lengthwise and circular joints) must be wired together using e.g. steel wire (min. 0.5 mm) or secured with mat hooks. Stainless steel pipes and pipes with a temperature of $> 400^{\circ}\text{C}$ should preferably be insulated with ProRox WM 960, in which both the mesh and the stitching wire is in stainless steel. If the mats are assembled in multiple layers, both the lengthwise and circular joints must be staggered ('masonry bond').

Support construction

Given the limited pressure resistance of wired mats, in most cases a support is required for the board cladding. As a guideline, assume that a support is required every 3 to 4 metres.

Finishing

The insulation should be finished with a metal (e.g. aluminium) cladding. Where necessary, expansion joints are provided to cater for expansion of the pipes. Both the lengthwise and circular joints are fastened with sheet-metal screws: hard aluminium or stainless steel 1/2", 8/metre. Close the expansion joints with a steel tensioning wire. Connections to mountings, head and end caps, etc. should be made watertight using a suitable sealant.

Note

All steel components exposed to a corrosive environment should be cleaned, de-greased and coated with a protective finish.

Advantages

- Suitable for heavy duty applications which are exposed to high temperatures and high mechanical loads
- Resistant to high temperatures
- Flexible application
- Available in a wide range of thicknesses
- Suitable for use over stainless steel



*Wheelmark is only applicable upon request.

Product properties¹

Properties	Performance							Standard
Thermal Conductivity ²	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.037	0.043	0.049	0.057	0.067	0.077	ASTM C177
	λ (W/mK)	0.040	0.048	0.057	0.068	0.079	0.093	IS 3346
Nominal Density	100 kg/m³							ASTM C167/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 550°C							IS 3144
Maximum Service Temperature	650°C							ASTM C411/C447
Linear Shrinkage	Less than 2% (at max service temperature)							ASTM C356
Incombustibility	<5 wt%							IS 3144
Reaction to Fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = passed							EN 13501-1 ASTM E84
pH	7-10							IS 3144
Water Leachable Chloride Content	Less than 10 ppm Conforms to the stainless steel corrosion specification as per ASTM C795							ASTM C871/ IS 3144 ASTM C692/C871
Sulphur Content	< 0.3 vol%							IS 3144
Water Absorption	Less than 1 kg/m²							EN 1609
Moisture Absorption	Less than 1% weight							ASTM C1104/C1104M IS 3144
Shot Content	> 250µm < 8 wt%							IS 3144
	> 500µm <3 wt%							

Note: 1. All information and data for technical parameters are based on laboratory testing.

2. Nominal values.

