

2.2 Insulation products

Rockwool 159

Wired mat



Thickness in mm	Length in mm	Width in mm	Packaging m ² /roll	m ² per 40ft HC container*
30	8000	500	4.0	2200
40	6000	500	3.0	1650
50	5000	500	2.5	1375
60	4000	500	2.0	1100
75	4000	500	2.0	934
80	3000	500	1.5	825
100	3000	500	1.5	750
120	3000	500	1.5	720

Shrink-wrapped

* approximately

The following variants are available on request:

- Rockwool 159 SW: Stainless steel mesh and stitching wire
- Rockwool 159 S: Galvanised steel mesh and stainless steel stitching wire
- Rockwool 159 ALU: Galvanised steel mesh and stitching wire with addition of aluminium foil between mesh and rock wool
- Rockwool 159 SW ALU: Stainless steel mesh and stitching wire with addition of aluminium foil between mesh and rock wool

Applications

Rockwool 159 is a lightly bonded heavy stone wool mat stitched on galvanised wired mesh with galvanised wire. The wired mat is especially suitable for industrial installations such as high-pressure steam pipes, reactors, furnaces, etc. where high demands are made on the temperature resistance of the insulation.

Advantages

- Excellent thermal and acoustic insulation
- Suitable for use over irregular surfaces
- Available in a wide range of thicknesses up to 120 mm
- Suitable for use over stainless steel

Product properties

	Performance							Standard
	t _m (°C)	50	100	150	200	250	300	
Thermal conductivity	λ (W/mK)	0.040	0.046	0.052	0.060	0.069	0.081	EN 12667, ASTM C177
	t _m (°F)	100	200	300	400	500	600	
	λ (BTU.in/ft ² .h.°F)	0.273	0.301	0.349	0.413	0.497	0.600	
Maximum Service Temperature	660°C (1256°F) 750°C (1382°F)							EN 14706 ASTM C411
Reaction to fire	A1 Surface burning characteristics: Flame spread=passed, Smoke development=passed							EN 13501-1 ASTM E84 (UL 723)
Water leachable chloride content	< 10mg/kg, AS-quality for use over stainless steel Conforms to the stainless steel corrosion specification as per ASTM test methods C692 and C871 < 10mg/kg (ph-value neutral to slightly alkaline)							EN 13468 ASTM C795 ASTM C871
Water absorption	Water absorption < 1 kg/m ² Water vapour absorption (vapor sorption) ± 0.02%vol							EN 1609 ASTM C1104/C1104M
Nominal density	100 kg/m ³ (6.24 lb/ft ³)							
Water vapour resistance factor	μ = 1.0							EN 12086
Compliance	Rockwool (RW) wire mesh blankets for thermal insulation of large diameter pipes, flat walls and equipment Standard specification for mineral fibre blanket insulation, type I and II							CINI 2.2.02 ASTM C592-06

2.2 Insulation products

Installation guidelines Rockwool 159

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°C should preferably be insulated with Rockwool 159 SW, 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, degreased and coated with a protective finish.