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ProRox

Industrial insulation

Product catalogue

ROCKWOOL®
TECHNICAL INSULATION

We share our knowledge to your advantage

ROCKWOOL© Technical Insulation – a subsidiary of the ROCKWOOL Group – develops innovative technical insulation solutions for the process industry and the shipbuilding & offshore market. Through our comprehensive product lines ProRox and SeaRox we offer a full spread of sustainable products and systems guaranteeing the highest possible thermal and firesafe insulation of all technical installations. Our +75 years of experience are reflected in a complete set of high-grade products and expert advice. Today, our dedicated and technically experienced people remain fully committed to providing the very best service and tools in the market and a total range of cutting-edge insulation solutions.

Excellent insulation products, outstanding people

All ROCKWOOL Technical Insulation solutions meet the most stringent quality and safety standards. All ProRox and SeaRox products and constructions have been tested according to the latest regulations and approved by all major classification societies. As an innovation-driven company we demand excellence. In every segment we keep searching for new systems, methods and solutions. We endeavour to develop ever more efficient products and to constantly optimise production processes and processing technologies. And we deliver! Our people know your market down to the smallest detail and provide continual knowledge and service for the benefit of the client. Besides excellent insulation products, they are the real key to our success. Thanks to their expertise and extensive experience, we can offer you exceptional stone wool solutions, expert tools and an impeccable service.

The best solutions, built on solid expertise

Our people's in-depth expertise is the best guarantee that end users in the petrochemicals, power generation, shipbuilding, offshore and the process industries are given the best and most advanced insulation solution. Both in the process industry and in the marine & offshore industry, our stone wool

products offer the highest possible protection against heat and energy loss, fire, noise and other unwanted influences. Our experts will be delighted to share their knowledge and advise you in drawing up technical and project specifications.

Up-to-date information and expert tools

As a highly skilled professional you are always looking for the best possible end result. The quickest way to achieve that is with ROCKWOOL Technical Insulation premium products, and the detailed information and expert tools that come with them, which always incorporate the latest technical findings. That's why you should always check that the information and tools you have are up-to-date. If you have any questions about specific application issues, working methods or product properties, please visit our website at www.rockwool-rti.com or contact us on +31(0)475 35 38 35.

The ROCKWOOL Group, +75 years of experience

ROCKWOOL Technical Insulation is a subsidiary of the ROCKWOOL Group, the world's largest and most experienced producer of stone wool products. ROCKWOOL International A/S is based in Hedehusene, Denmark. The parent company has net turnover of around € 1.97 billion in 2012. ROCKWOOL International has 27 factories in Europe, North America and Asia, and has around 9,700 employees.

ROCKWOOL has a melting point above 1000°C

ROCKWOOL products withstand temperatures up to 1000°C, making them exceptionally resistant to fire. This resistance can slow a fire's progress and buy precious time for rescue operations while helping to protect the building's structure from unnecessary damage. Yet while heat and flames are bad enough in a fire, smoke is the serious danger. It can suffocate occupants, and it can incapacitate people who might otherwise have been able to escape. ROCKWOOL insulation keeps toxic smoke from insulation to a minimum for even greater safety.

Stone wool protects people and the environment

ROCKWOOL products offer effective protection and optimal performance for the entire life cycle of the installation. According to independent research ROCKWOOL is one of the most durable products available with an unequalled combination in the field of environmental improvement, energy savings, CO2 reduction, acoustic insulation and fire safety. A positive 'carbon footprint': During its entire life cycle, ROCKWOOL insulation will save more than 20,000 times the carbon emissions caused by its production. The fire retardant and fire insulating characteristics of our stone wool products deliver superior protection to people, property and the environment.

Founding Partner of EIIF

- ROCKWOOL Technical Insulation was one of the founding partners of the European Industrial Insulation Foundation (EIIF), which has established itself as a resource for industries that need to reduce CO_2 emissions.

European Industrial Insulation Foundation
Founding Partner

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NEW PRODUCT NAMES

New product names, logical structure

Each product name is structured in the same clear way:

e.g.: **ProRox WM 970 ALU^{NL}**

Product range ◄

► 2 last digits = other product characteristics

■ Product identifier ◄

WM = Wired Mats

SL = Slabs

PS = Pipe Sections

MA = Mats

■ Application code ►

1st digit: 3 = acoustics, 5 = compression, 9 = thermal insulation

■ Product variants ◄

ALU = reinforced aluminium

ProRox
Industrial insulation

In the view of our rebranding strategy we have adapted and clarified the entire range of ROCKWOOL Technical Insulation products. From now on, all our insulation solutions for technical installations in the process industry will be part of the **ProRox** range. The main characteristic of these products is their high thermal insulation capacity. Next to this, they of course also comply with the most stringent requirements on fire resistance and acoustic insulation. Below you will get an overview of the **ProRox** range and its new names.

Industrial insulation

Application selector

			Thermal insulation	
			Pipe work	
			ø <356	ø >356
	NEW NAME	OLD NAME		
Pipe Sections	**ProRox PS 960**	Rockwool 850	■■■	■■
	ProRox PS 970	Rockwool 851	■■■	■■
Wired Mats	**ProRox WM 940^{NL}**	Rockwool 160	■	■■■
	ProRox WM 950^{NL}	Rockwool 164	■	■■■
	ProRox WM 960^{NL}	Rockwool 159	■	■■■
	ProRox WM 970^{NL}	Rockwool 168	■■	■■■
Mats	**ProRox MA 520 ALU**	Rockwool Duraflex	■■	■■■
Slabs	**ProRox SL 920**	Rockwool Flexiboard		
	ProRox SL 930	Rockwool Multiboard		
	ProRox SL 940	Rockwool 231		
	ProRox SL 950	Rockwool HT 600		
	ProRox SL 960	Rockwool 233		
	ProRox SL 970	Rockwool HT 660		
	ProRox SL 980	Rockwool HT 700		
	ProRox SL 540	Rockwool 251.001		
	ProRox SL 560	Rockwool 251		
	ProRox SL 580	Rockwool CRS		
Loose Fill	**ProRox LF 970**	Rockwool Loose Fill		
Industrial Hand fill	**ProRox GR 903**	Rockwool Granulate		

Thermal insulation						
Columns, Tanks, Vessels			Larg voids & cavities	Cold boxes	Ovens	Furnaces
wall (ø <5m)	wall (ø >5m)	Roof				
■■■						
	■■■	■				
	■■■	■■				
					■■■	■■■
					■■■	■■■
					■■■	■■■
		■■■				
			■■■			
				■■■		

Remarks

Due to an almost limitless range of applications, we have not provided detail information for all the applications. Information is available in the following manuals/standards for industrial insulation:

- CINI manual 'Insulation for industries'
- AGI Q101 (Insulation work on power plant components)
- DIN 4140 (Insulation work on industrial installations and building equipment)
- BS 5970 (Code of practice for the thermal insulation of pipework, ductwork, associated equipment and other industrial installations)

For specific applications, our ROCKWOOL Technical Insulation sales team will be pleased to advise you.

ProRox PS 960

NEW NAME

Old name: Rockwool 850

Pipe Section

☐ Packed in cartons

▪ Packed in shrinkfoil

All pipe sections 1000 mm in length.

Other dimensions (up to diameters of 915 mm) are available upon request.

	Approximate quantities per 40ft HC container in m[1]							
Ø mm	25	30	40	50	60	80	100	120
17	12000	10000	6400	3600				
21	10000	8000	5200	3600	2400			
27	10000	8000	4800	3600	2400			
33	8000	6400	3600	3200	2000			
42	6400	4800	3600	2400	1600			
48	6000	4800	3600	2400	1600			
57	4800	3600	2400	2000	1600			
60	4400	3600	2400	2000	1600	1440	1044	
64	3600	3600	2400	1600	1992	1420	912	
70	3600	3200	2000	1600	1944	1400	896	
76	3600	2800	2000	1600	1738	1116	880	
83	2800	2400	2000	1992	1694	1098	864	
89	2400	2400	1600	1944	1650	1080	848	
102	2000	1600	1600	1694	1440	912	714	
108	2000	1600	1944	1650	1400	896	714	
114	1600	1600	1896	1480	1260	880	700	468
121	1600	1600	1694	1440	1098	864	686	468
127	1600	1968	1672	1400	1080	848	672	456
133	1992	1920	1480	1260	1062	742	672	456
140	1944	1716	1440	1116	1044	728	564	444
159	1650	1440	1116	1044	880	686	468	360
169	1440	1400	1080	896	848	672	456	350
194	1098	1400	880	728	700	468	360	330
219	896	1062	728	686	564	444	340	320
245	728	880	672	552	456	350	330	240
267	686	714	480	456	444	340	310	232
273	686	672	480	456	360	330	248	232
280	672	672	468	444	360	330	248	232
305	468	564	444	350	340	310	232	224
324	456	444	350	340	330	240	224	216
356	350	340	330	320	248	232	216	156
368	340	340	320	310	240	224	216	150
406	320	310	240	232	224	216	150	144
419		280	240	232	224	208	150	144
456		232	224	216	208	150	144	102
508		216	156	150	150	138	96	96
558		150	144	144	138	96	90	60
610			138	96	96	90	56	56

Applications

ProRox PS 960 is a pre-formed stone wool pipe section. The sections are supplied split and hinged for easy snap-on assembly, and are suitable for the thermal and acoustic insulation of industrial pipe work.

Compliance

ProRox PS 960 Pipe Sections full comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.03, ASTM C547: Grade A for type I, II, IV.

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

Installation guidelines

Assembly

Fit the ProRox PS 960 closely around the pipe, with the lengthwise (horizontal) joint turned towards the underside. The lengthwise joints must be staggered at an angle of at least 30 degrees to each other. The shell is secured with galvanised binding wire (thickness 0.5 mm, at least 3/m). For insulation thickness above 100 mm (or temperatures > 250°C) the insulation should be applied in at least two layers. In the case of multi-layer insulation it is recommended that the lengthwise and crosswise joints are staggered ('masonry bond').

Support construction

On pipes where mechanical loading (e.g. strong vibrations) of the insulation is expected and/or the temperature is higher than 300°C, a support structure (spacers) should be constructed. The number of spacers depends on the temperature and the mechanical load. As a guide, the following intermediate distances can be used:

- Horizontal pipe work: 3 to 4 m
- Vertical pipe work: 5 to 6 m

Finishing

All pipe sections should be finished with a metal (e.g. aluminium) cladding. Where necessary, expansion joints are required 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 per metre. Close expansion joints with a steel tensioning wire. Connections to mountings, head and end caps, etc. should be made watertight using an appropriate sealant.

Advantages

- Excellent fit provides optimal performance
- Easy to handle and to install
- Wide range of diameters and insulation thicknesses
- Suitable for use over stainless steel
- For temperatures up to 350°C, a support construction is not generally necessary

Product properties

CE

	Performance								Norms
Thermal conductivity	T_m (°C)	50	100	150	200	250	300	350	EN ISO 8497
	λ (W/mK)	0.040	0.046	0.054	0.064	0.077	0.092	0.111	ASTM C335
Maximum Service Temperature	650°C (1200°F) 750°C (1382°F)								EN 14707 ASTM C411
Maximum surface performance	650°C (1200°F)								ASTM C447
Reaction to fire	EuroClass $A1_L$ Surface burning characteristics; Flame spread = passed, Smoke development = Passed								EN 13501-1 ASTM E84 (UL 723)
Nominal density	125 kg/m³ (7.8 lb/ft³)								EN 13470
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)								EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol								EN 13472 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1								EN 14303
Air Flow Resistivity	> 80 kPa.s/m²								EN 29053
Designation code	MW EN 14303-T9(T8 if D_o<150)-ST(+)650-WS1-CL10								EN 14303

ProRox PS 970

NEW NAME

Old name: Rockwool 851

Heavy duty pipe section

☐ Packed in boxes

Shrink-wrapped pipe sections

All pipe sections 1000 mm in length.

Other dimensions (up to diameter of 915 mm) are available upon request.

Approximate quantities per 40ft HC container in m[1]								
	Insulation thickness in mm							
Ø mm	25	30	40	50	60	80	100	120
17	12000	10000	6400	3600				
21	10000	8000	5200	3600	2400			
27	10000	8000	4800	3600	2400			
33	8000	6400	3600	3200	2000			
42	6400	4800	3600	2400	1600			
48	6000	4800	3600	2400	1600			
57	4800	3600	2400	2000	1600			
60	4400	3600	2400	2000	1600	1440	1044	
64	3600	3600	2400	1600	1992	1420	912	
70	3600	3200	2000	1600	1944	1400	896	
76	3600	2800	2000	1600	1738	1116	880	
83	2800	2400	2000	1992	1694	1098	864	
89	2400	2400	1600	1944	1650	1080	848	
102	2000	1600	1600	1694	1440	912	714	
108	2000	1600	1944	1650	1400	896	714	
114	1600	1600	1896	1480	1260	880	700	468
121	1600	1600	1694	1440	1098	864	686	468
127	1600	1968	1672	1400	1080	848	672	456
133	1992	1920	1480	1260	1062	742	672	456
140	1944	1716	1440	1116	1044	728	564	444
159	1650	1440	1116	1044	880	686	468	360
169	1440	1400	1080	896	848	672	456	350
194	1098	1400	880	728	700	468	360	330
219	896	1062	728	686	564	444	340	320
245	728	880	672	552	456	350	330	240
267	686	714	480	456	444	340	310	232
273	686	672	480	456	360	330	248	232
280	672	672	468	444	360	330	248	232
305	468	564	444	350	340	310	232	224
324	456	444	350	340	330	240	224	216
356	350	340	330	320	248	232	216	156
368	340	340	320	310	240	224	216	150
406	320	310	240	232	224	216	150	144
419		280	240	232	224	208	150	144
456		232	224	216	208	150	144	102
508		216	156	150	150	138	96	96
558		150	144	144	138	96	90	60

Applications

ProRox PS 970 is a pre-formed high density stone wool pipe section. The sections are supplied split and hinged for easy snap-on assembly, and are especially suitable for the thermal and acoustic insulation of industrial pipe work which is exposed to high temperature and light (e.g. vibrations) mechanical loads.

Compliance

ProRox PS 970 Pipe Sections full comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.03, ASTM C547: Grade A for type I, II, IV.

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

Installation guidelines

Assembly

Fit the ProRox PS 970 closely around the pipe, with the lengthwise (horizontal) joint turned towards the underside. The lengthwise joints must be staggered at an angle of at least 30 degrees to each other. The shell is secured with galvanised binding wire (thickness 0.5 mm, at least 3/m). For insulation thickness above 100 mm (or temperatures > 250°C) the insulation should be applied in at least two layers. In the case of multi-layer insulation it is recommended that the lengthwise and crosswise joints are staggered ('masonry bond').

Support construction

On pipes where mechanical loading (e.g. strong vibrations) of the insulation is expected and/or the temperature is higher than 300°C, a support structure (spacers) should be constructed. The number of spacers depends on the temperature and the mechanical load. As a guide, the following intermediate distances can be used:

- Horizontal pipe work: 3 to 4 m
- Vertical pipe work: 5 to 6 m

Finishing

All pipe sections should be finished with a metal (e.g. aluminium) cladding. Where necessary, expansion joints are required 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 expansion joints with a steel tensioning wire. Connections to mountings, head and end caps etc. should be made watertight using an appropriate sealant.

Advantages

- Suitable for heavy duty applications which are exposed to high temperatures and high mechanical loads
- Excellent fit provides optimal performance
- Easy to handle and to install
- Wide range of diameters and insulation thicknesses
- Suitable for use over stainless steel
- For temperatures up to 350°C, a support construction is not generally necessary

Product properties

CE

	Performance								Norms
Thermal conductivity	T_m (°C)	50	100	150	200	250	300	350	EN ISO 8497
	λ (W/mK)	0.040	0.046	0.053	0.062	0.073	0.085	0.099	ASTM C335
Maximum Service Temperature	680°C (1256°F) 750°C (1382°F)								EN 14707 ASTM C411
Maximum surface performance	650°C (1200°F)								ASTM C447
Reaction to fire	EuroClass $A1_L$ Surface burning characteristics; Flame spread = passed, Smoke development = Passed								EN 13501-1 ASTM E84 (UL 723)
Nominal density	140 kg/m³ (8.7 lb/ft³)								EN 13470
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)								EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol								EN 13472 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1								EN 14303
Air Flow Resistivity	> 90 kPa.s/m²								EN 29053
Designation code	MW EN 14303-T9(T8 if D_o<150)-ST(+)680-WS1-CL10								EN 14303

ProRox WM 940^{NL}

NEW NAME

Old name: Rockwool 160

Wired mat

Thickness mm	Length mm	Width mm	Packaging m²/roll	m² 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	1100
80	3000	500	1.5	825
100	3000	500	1.5	750
120	3000	500	1.5	720

☐ Shrink-wrapped

*Approximate quantities.

The following variants are available on request:

- ProRox WM 940 SW^{NL}: Stainless steel mesh and stitching wire
- ProRox WM 940 S^{NL}: Galvanised steel mesh and stainless steel stitching wire
- ProRox WM 940 ALU^{NL}: Galvanised steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool
- ProRox WM 940 SW ALU^{NL}: Stainless steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool

Applications

ProRox WM 940^{NL} is a lightly bonded stone wool mat stitched on galvanised wire mesh using galvanised wire. The wired mat is suitable for thermal acoustic insulation of industrial applications reachting high temperatures, such as industrial pipe work, boiler walls, furnaces and smoke ducts. Stainless steel mesh, stainless steel binding wire and/or aluminium foil facing are available upon request.

Advantages

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

Compliance

ProRox WM 940^{NL} Wired Mats fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.02 and ASTM C592 Type I and II.

Product properties

CE

	Performance											Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	EN 12667
	λ (W/mK)	0.039	0.047	0.055	0.064	0.075	0.088	0.103	0.119	0.157	0.205	ASTM C177
Maximum Service Temperature	600°C (1112°F) 750°C (1382°F)											EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed											EN 13501-1 ASTM E84 (UL 723)
Nominal density	70 kg/m³ (4.4 lb/ft³)											EN 1602
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)											EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol											EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1											EN 14303
Air Flow Resistivity	> 20 kPa.s/m²											EN 29053
Designation code	MW EN 14303-T2-ST(+)600-WS1-CL10											EN 14303

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

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) must be wired together using 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 ProRox WM 940 SW^{NL}, in which both the mesh and the stitching wire is 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.

ProRox WM 950^{NL} NEW NAME

Old name: Rockwool 164

Wired mat

Thickness mm	Length mm	Width mm	Packaging m²/roll	m² 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	1100
80	3000	500	1.5	825
100	3000	500	1.5	750
120	3000	500	1.5	720

☐ Shrink-wrapped

*Approximate quantities.

The following variants are available on request:

- ProRox WM 950 SW^{NL}: Stainless steel mesh and stitching wire
- ProRox WM 950 S^{NL}: Galvanised steel mesh and stainless steel stitching wire
- ProRox WM 950 ALU^{NL}: Galvanised steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool
- ProRox WM 950 SW ALU^{NL}: Stainless steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool

Applications

ProRox WM 950^{NL} is a lightly bonded stone wool mat stitched on galvanised wire mesh using galvanised wire. The wired mat is suitable for thermal and acoustic insulation of industrial applications reaching high temperatures, such as industrial pipe work, boiler walls, furnaces and smoke ducts.

Advantages

- Suitable for high temperature application
- Flexible application
- Available in a wide range of thicknesses
- Suitable for use over stainless steel

Compliance

ProRox WM 950^{NL} Wired Mats fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.02 and ASTM C592 Type I, II and III.

Product properties

CE

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	640	EN 12667
	λ (W/mK)	0.039	0.045	0.053	0.062	0.072	0.084	0.097	0.112	0.146	0.192	0.213	
Maximum Service Temperature	640°C (1184°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	80 kg/m³ (5.0 lb/ft³)												EN 1602
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)												EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 40 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T2-ST(+)640-WS1-CL10												EN 14303

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

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) must be wired together using 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 ProRox WM 950 SW^{NL}, in which both the mesh and the stitching wire is stainless steel. If the mats are assembled in multiple layers, both the lengthwise and circular joints must be staggered ('masonry bond').

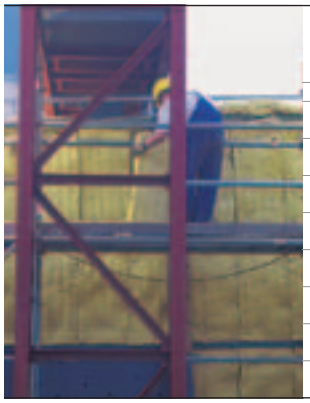
Support construction
Given the limited pressure resistance of wired mats, in most cases a support is required for the board cladding. As a guideline, assume that a support is required every 3 to 4 metres.

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.

ProRox WM 960^{NL} NEW NAME

Old name: Rockwool 159

Heavy duty wired mat



Thickness mm	Length mm	Width mm	Packaging m²/roll	m² 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

The following variants are available on request:

- ProRox WM 960 SW^{NL}: Stainless steel mesh and stitching wire
- ProRox WM 960 S^{NL}: Galvanised steel mesh and stainless steel stitching wire
- ProRox WM 960 ALU^{NL}: Galvanised steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool
- ProRox WM 960 SW ALU^{NL}: Stainless steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool

☐ Shrink-wrapped

*Approximate quantities.

Applications

ProRox WM 960^{NL} 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.

Compliance

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

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

Product properties

CE

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	660	EN 12667
	λ (W/mK)	0.039	0.045	0.052	0.059	0.068	0.078	0.089	0.102	0.131	0.167	0.191	ASTM C177
Maximum Service Temperature	660°C (1220°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	100 kg/m³ (6.2 lb/ft³) EN 1602												EN 1602
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)												EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 60 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T2-ST(+)660-WS1-CL10												EN 14303

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

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°C should preferably be insulated with ProRox WM 960 SW^{NL}, 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.

ProRox WM 970^{NL} NEW NAME Old name: Rockwool 168

Heavy duty wired mat

Thickness mm	Length mm	Width mm	Packaging m²/roll	m² 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

☐ Shrink-wrapped

*Approximate quantities.

The following variants are available on request:

- ProRox WM 970 SW^{NL}: Stainless steel mesh and stitching wire
- ProRox WM 970 S^{NL}: Galvanised steel mesh and stainless steel stitching wire
- ProRox WM 970 ALU^{NL}: Galvanised steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool
- ProRox WM 970 SW ALU^{NL}: Stainless steel mesh and stitching wire with addition of aluminium foil between mesh and stone wool

Applications

ProRox WM 970^{NL} 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 where high temperature and vibration resistance is required.

Compliance

ProRox WM 970^{NL} Wired Mats fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.02 and ASTM CC592 Type I, II and III.

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

Product properties

CE

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	680	EN 12667
	λ (W/mK)	0.040	0.045	0.051	0.058	0.066	0.075	0.085	0.096	0.123	0.157	0.188	ASTM C177
Maximum Service Temperature	680°C (1256°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	128 kg/m³ (8.0 lb/ft³)												EN 1602
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)												EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 80 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T2-ST(+)680-WS1-CL10												EN 14303

Note
All steel components exposed to a corrosive environment should be cleaned, degreased and coated with a protective finish.

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 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 ProRox WM 970 SW^{NL}, 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.

ProRox MA 520 ALU

NEW NAME

Old name: Rockwool Duraflex

Load bearing mat

Thickness mm	Length mm	Width mm	Packaging m²/duo roll	m² per 40ft HC container
30	8000	500	8.0	2336
40	6000	500	6.0	1752
50	5000	500	5.0	1400
60	4500	500	4.5	1170
70	4000	500	4.0	1000
80	3500	500	3.5	875
90	3000	500	3.0	780
100	3000	500	3.0	700

☐ Shrink-wrapped

Applications

ProRox MA 520 ALU is a compression resistant stone wool insulation mat bonded onto fibreglass reinforced aluminium foil. The insulation mat is suitable for the thermal and acoustic insulation of especially large diameter piping, vessels, ducts and equipment up to intermediate temperatures.

Compliance

ProRox MA 520 ALU full comply with the requirements as set by internationally recognized standards like EN14303 and CINI 2.2.05.

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

Product properties

CE

	Performance	Norms
Thermal conductivity	T (°C) 50 100 150 200 250 300 400 500 λ (W/mK) 0.044 0.053 0.064 0.077 0.092 0.110 0.156 0.216	EN 12667 ASTM C177
Maximum Service Temperature	500°C (932°F) The outer foil temperature is restricted to 80°C (176°F). ProRox MA 520 ALU should therefore not be applied at operating temperatures in excess of 300°C.	EN 14706
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed	EN 13501-1 ASTM E84 (UL 723)
Nominal density	60 kg/m³ (3.7 lb/ft³)	
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)	EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol	EN 14303 EN 12086
Water vapour diffusion resistance	μ = 1 Sd > 200 m (for Alu-foil faced product)	EN 14303 EN 12086
Compression resistance	> 10 kPa (at 10% deformation)	EN 826
Air Flow Resistivity	> 20 kPa.s/m²	EN 29053
Designation code	MW EN 14303-T3-ST(+)500-CS(10)10-WS1-MV2-CL10	EN 14303

ProRox SL 920

NEW NAME

Old name: Rockwool Flexiboard

Flexible slab

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	14.4	2419
30	1000	600	12.0	2016
40	1000	600	9.0	1512
50	1000	600	7.2	1210
60	1000	600	6.0	1008
70	1000	600	3.6	907
75	1000	600	4.8	806
80	1000	600	3.6	756
100	1000	600	3.6	605

Available on request with a one-sided facing of fibreglass reinforced aluminium foil (Alu) or glass tissue

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 920 is a flexible stone wool slab. ProRox SL 920 is suitable for the thermal insulation of horizontal and vertical walls. A one-sided facing with fibreglass reinforced aluminium foil (Alu) or glass tissue is available upon request.

Compliance

ProRox SL 920 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA.

Advantages

- Flexible application
- Available in a wide range of thicknesses

Product properties

CE

	Performance						Norms
Thermal conductivity	T (°C)	50	100	150	200	250	EN 12667 ASTM C177
	λ (W/mK)	0.042	0.054	0.069	0.086	0.106	
Maximum Service Temperature	250°C (482°F) 450°C (842°F) In case of aluminium facing the outer foil temperature should be limited to 80°C (176°F)						EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed						EN 13501-1 ASTM E84 (UL 723)
Nominal density	40 kg/m³ (2.5 lb/ft³)						EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871						ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol						EN 1609 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1 Sd > 200 m (for Alu-foil faced product)						EN 14303
Air Flow Resistivity	> 10 kPa.s/m²						EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)250-WS1						EN 14303
	MW EN 14303-T4(T3 if t<60)-ST(+)250-WS1-MV2 (for Alu-foil faced product)						

Installation guidelines

- Mechanically fix ProRox SL 920 using self-adhesive or welded pins.
- In the case of aluminium foil facing, finish length-wise and crosswise joints with a self-adhesive aluminium tape (≥75 mm). When insulating objects colder than the ambient temperature, where there is a risk of condensation, the insulation should be provided with a vapour barrier. For external applications, the insulation should be finished with a metal, (e.g. aluminium) watertight covering.

ProRox SL 930

NEW NAME

Old name: Rockwool Multiboard

Load bearing mat

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
40	1000	600	6.0	1620
50	1000	600	4.8	1210
60	1000	600	4.8	1008
70	1000	600	3.6	907
75	1000	600	3.6	756
80	1000	600	3.6	756
90	1000	600	3.0	630

Available on request with a one-sided facing of fibreglass reinforced aluminium foil (Alu) or glass tissue

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 930 is a semi rigid stone wool slab.
A one-sided facing with fibreglass reinforced aluminium foil (Alu) or glass tissue is available upon request.

Compliance

ProRox SL 930 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA.

Advantages

- Available in a wide range of thicknesses
- Semi-rigid product combined with aluminium foil or fibreglass coating provides a smart, smooth surface finish

CE

Product properties

	Performance								Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	EN 12667 ASTM C177
	λ (W/mK)	0.040	0.049	0.059	0.070	0.085	0.103	0.122	
Maximum Service Temperature	350°C (662°F) 450°C (842°F) In case of aluminium facing the outer foil temperature should be limited to 80°C (176°F)								EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed								EN 13501-1 ASTM E84 (UL 723)
Nominal density	55 kg/m³ (3.4 lb/ft³)								EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871								ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol								EN 1609 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1 Sd > 200 m (for Alu-foil faced product)								EN 14303
Air Flow Resistivity	> 20 kPa.s/m²								EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)350-WS1 MW EN 14303-T4(T3 if t<60)-ST(+)350-WS1-MV2 (for Alu-foil faced product)								EN 14303

Installation guidelines

- Mechanically fix ProRox SL 930 using self-adhesive or welded pins. Due to the rigidity of the product, it can also be mounted in cassettes.
- In the case of aluminium foil facing, finish lengthwise and crosswise joints with a self-adhesive aluminium tape (≥75 mm). When insulating objects colder than the ambient temperature, where there is a risk of condensation, the insulation should be provided with a vapour barrier. The insulation should be finished with a metal (e.g. aluminium), watertight covering.

ProRox SL 940

NEW NAME

Old name: Rockwool 231

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	9.6	2419
30	1000	600	6.0	2016
40	1000	600	6.0	1512
50	1000	600	3.6	1210
60	1000	600	4.8	1008
75	1000	600	2.4	806
100	1000	600	2.4	605
120	1000	600	2.4	504

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 940 is a rigid stone wool slab, specially developed for the thermal and acoustic insulation of technical equipment in the intermediate temperature range.

Advantages

- Excellent thermal and acoustic insulation
- Resistant to high temperatures

Product properties

CE

	Performance									Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	EN 12667 ASTM C177
	λ (W/mK)	0.041	0.047	0.055	0.065	0.078	0.093	0.108	0.126	
Maximum Service Temperature	400°C (752°F) 500°C (932°F)									EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed									EN 13501-1 ASTM E84 (UL 723)
Nominal density	70 kg/m³ (4.4 lb/ft³)									EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871									ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol									EN 1609 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1 Sd > 200 m (for Alu-foil faced product)									EN 14303
Air Flow Resistivity	> 30 kPa.s/m²									EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)400-WS1									EN 14303
	MW EN 14303-T4(T3 if t<60)-ST(+)400-WS1-MV2 (for Alu-foil faced product)									

ProRox SL 950

NEW NAME

Old name: Rockwool HT600

Rigid slab

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	9.6	2592
30	1000	600	6.0	2016
40	1000	600	6.0	1620
50	1000	600	4.8	1296
60	1000	600	3.0	1008
80	1000	600	3.0	810
100	1000	600	2.4	648
120	1000	600	1.8	529

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 950 is a strong, rigid slab, specially developed for the thermal and acoustic insulation of boilers, columns and vessels up to intermediate temperatures.

Advantages

- Suitable up to intermediate temperatures
- Retains shape
- Available in a wide range of thicknesses

Compliance

ProRox SL 950 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA, IB, II, III, IVA and IVB.

CE

Product properties

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	640	EN 12667
	λ (W/mK)	0.039	0.045	0.053	0.062	0.073	0.084	0.097	0.112	0.144	0.186	0.205	ASTM C177
Maximum Service Temperature	640°C (1184°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	80 kg/m³ (5.0 lb/ft³)												EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871												ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 40 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)640-WS1												EN 14303

ProRox SL 960

NEW NAME

Old name: Rockwool 233

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	8.4	2470
30	1000	600	6.0	2016
40	1000	600	3.6	1663
50	1000	600	3.6	1210
60	1000	600	3.0	1008
70	1000	600	1.8	907
75	1000	600	2.4	806
80	1000	600	1.8	832
100	1000	600	1.8	605
120	1000	600	1.2	554

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 960 is a strong and rigid slab and is especially suitable for the thermal and acoustic insulation of constructions up to intermediate temperatures.

Advantages

- Excellent thermal and acoustic insulation
- Resistant to high temperatures

Compliance

ProRox SL 960 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA and IB.

Product properties

CE

	Performance										Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	EN 12667 ASTM C177
	λ (W/mK)	0.039	0.045	0.052	0.060	0.071	0.081	0.094	0.107	0.140	
Maximum Service Temperature	500°C (932°F) 600°C (1112°F)										EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed										EN 13501-1 ASTM E84 (UL 723)
Nominal density	100 kg/m³ (6.2 lb/ft³)										EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871										ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol										EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1										EN 14303
Air Flow Resistivity	> 60 kPa.s/m²										EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)500-WS1										EN 14303

ProRox SL 970

NEW NAME

Old name: Rockwool HT 660

High temperature slab

Thickness mm	Length mm	Width mm	Packaging m^2/pack	m^2 per 40ft HC container*
30	1000	600	6.0	2016
40	1000	600	4.8	1613
50	1000	600	3.6	1210
60	1000	600	3.0	1008
80	1000	600	1.8	832

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL970 is a strong and rigid stone wool slab, for the thermal and acoustic insulation of constructions where higher temperatures and light mechanical loads (e.g. vibrations) occur. Typical examples are ovens, furnaces and exhaust ducts.

Compliance

ProRox SL 970 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA, IB, II, III, IVA and IVB.

Advantages

- Suitable for high temperature application
- Retains shape
- Available in a wide range of thicknesses

CE

Product properties

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	680	EN 12667
	λ (W/mK)	0.041	0.046	0.056	0.068	0.077	0.087	0.099	0.128	0.162	0.162	0.196	ASTM C177
Maximum Service Temperature	680°C (1256°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	115 kg/m^3 (7.2 lb/ft^3)												EN 1602
Water leachable chloride content	Chloride content < 10 ppm (AS - Quality) Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)												EN 13468 ASTM C795 ASTM C871
Water absorption	< 1 kg/m^2 Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 70 kPa.s/m^2												EN 29053
Designation code	MW EN 14303-T4(T3 if t<60)-ST(+)680-WS1-CL10												EN 14303

ProRox SL 980

NEW NAME

Old name: Rockwool HT 700

Heavy duty slab

Thickness mm	Length mm	Width mm	Packaging m^2/pack	m^2 per 40ft HC container*
30	1000	600	3.6	2117
40	1000	600	3.0	1638
50	1000	600	2.4	1310
60	1000	600	1.8	1058

*Approximate quantities.

Applications

ProRox SL 980 is a strong and rigid stonewool slab, for the thermal and acoustic insulation of constructions where higher demands are made on the temperature resistance and mechanical loads of the insulation.

Compliance

ProRox SL 980 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA, IB, II, III, IVA and IVB.

Advantages

- Suitable for heavy duty applications which are exposed to high temperatures and high mechanical loads
- Retains shape
- Available in a wide range of thicknesses

CE

Product properties

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	700	EN 12667
	λ (W/mK)	0.040	0.044	0.049	0.055	0.062	0.069	0.077	0.086	0.106	0.130	0.158	
Maximum Service Temperature	700°C (1292°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	145 kg/m^3 (9.1 lb/ft^3)												EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871												ASTM C795
Water absorption	< 1 kg/m^2 Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Air Flow Resistivity	> 110 kPa.s/m^2												EN 29053
Designation code	MW EN 14303-T4(T3 if t<40)-ST(+)700-WS1												EN 14303

ProRox SL 540

NEW NAME

Old name: Rockwool 251.001

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
30	1000	600	4.8	2117
40	1000	600	3.6	1663
50	1000	600	2.4	1301
60	1000	600	2.4	1058
65	1000	600	1.8	983

☐ Boards are shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 540 is a highly pressure resistant stone wool slab for the thermal and acoustic insulation of constructions where high temperatures and mechanical loads (e.g. vibrations) occur.

Compliance

ProRox SL 540 Slabs comply with the requirements as set by EN14303, CINI 2.2.01 and ASTM C612: type IA, IB, II, III, IVA...

Advantages

- Excellent thermal and acoustic insulation
- Resistant to high temperatures
- Resistant to mechanical loads

Product properties

CE

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	700	EN 12667
	λ (W/mK)	0.042	0.047	0.052	0.057	0.064	0.072	0.082	0.093	0.117	0.147	0.181	
Maximum Service Temperature	700°C (1292°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	160 kg/m³ (10.0 lb/ft³)												EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871												ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Compression resistance	> 25 kPa (at 10% deformation)												EN 826
Air Flow Resistivity	> 120 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T4(T3 if t<40)-ST(+)700-CS(10)25(if t≥50)-WS1												EN 14303

ProRox SL 560

NEW NAME

Old name: Rockwool 251

Thickness mm	Length mm	Width mm	Packaging m²/pack	m² per 40ft HC container*
40	1000	600	2.4	1613
50	1000	600	1.8	1285
60	1000	600	1.8	1058
80	1000	600	1.2	806
100	1000	600	1.2	655

☐ Shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 560 is a highly pressure resistant stone wool slab for the thermal and acoustic insulation of constructions where high temperatures and mechanical loads (e.g. vibrations) occur.

Advantages

- Excellent thermal and acoustic insulation
- Resistant to high temperatures
- Resistant to mechanical loads

Compliance

ProRox SL 560 Slabs comply with the requirements as set by EN14303, CINI 2.2.01 and ASTM C612: type IA, IB, II, III, IVA.

CE

Product properties

	Performance												Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	350	400	500	600	700	EN 12667
	λ (W/mK)	0.042	0.047	0.052	0.057	0.064	0.072	0.082	0.093	0.117	0.147	0.181	
Maximum Service Temperature	700°C (1292°F) 750°C (1382°F)												EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed												EN 13501-1 ASTM E84 (UL 723)
Nominal density	175 kg/m³ (10.9 lb/ft³)												EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871												ASTM C795
Water absorption	< 1 kg/m² Water vapour absorption (Vapor sorption) ± 0.02% vol												EN 1609 ASTM C1104/ C1104M
Water vapour diffusion resistance	μ = 1												EN 14303
Compression resistance	> 30 kPa (at 10% deformation)												EN 826
Air Flow Resistivity	> 120 kPa.s/m²												EN 29053
Designation code	MW EN 14303-T4(T3 if t<40)-ST(+)700-CS(10)30(if t≥50)-WS1												EN 14303

ProRox SL 580

NEW NAME

Old name: Rockwool CRS

Compression resistant slab

Thickness mm	Length mm	Width mm	Packaging m^2/pack	m^2 per 40ft HC container*
40	1000	600	3.0	1638
50	1000	600	2.4	1310
60	1000	600	2.4	1109
80	1000	600	1.8	832
100	1000	600	1.2	655

☐ Shrink-wrapped

*Approximate quantities.

Applications

ProRox SL 580 is a pressure resistant stone wool slab with high resistance to mechanical loads. The compression resistant slab is developed for the thermal insulation of tank roofs subjected to pedestrian traffic, and the thermal and acoustic insulation of onstructions subjected to a mechanical load.

Advantages

- Resistant to foot traffic
- Available in a wide range of thicknesses

Compliance

ProRox SL 580 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01 and ASTM C612 Type IA, IB, II, III, IVA and IVB.

CE

Product properties

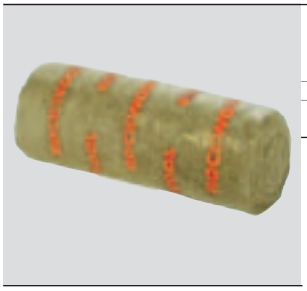
	Performance						Norms
Thermal conductivity	T (°C)	50	100	150	200	250	EN 12667
	λ (W/mK)	0.041	0.047	0.053	0.060	0.067	
Maximum Service Temperature	250°C (482°F)						EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed						EN 13501-1 ASTM E84 (UL 723)
Nominal density	150 kg/m^3 (9.4 lb/ft^3)						EN 1602
Water leachable chloride content	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871						ASTM C795
Water absorption	< 1 kg/m^2 Water vapour absorption (Vapor sorption) ± 0,02% vol						EN 1609 ASTM C1104/C1104M
Water vapour diffusion resistance	μ = 1						EN 14303
Compression resistance	> 50 kPa (at 10% deformation)						EN 826
Air Flow Resistivity	> 110 kPa.s/m^2						EN 29053
Designation code	MW EN 14303-T4(T3 if t<40)-ST(+)250-CS(10)50(if t≥50)-WS1						EN 14303

ProRox LF 970

NEW NAME

Old name: Rockwool Loose Fill

Loose Fill



Product	Packaging	Kg/packaging	Kg per 40 ft HC Container*
ProRox LF 970 (Rolls)	Bag	15	5250

☐ Packed into bags

*Approximate quantities.

Applications

ProRox LF 970 ROCKWOOL Loose Fill is lightly bonded impregnated stone wool. This product is especially suitable for thermal insulation and acoustic insulation of joints and irregularly formed constructions.

Advantages

- Ease of use
- Flexible application

Product properties

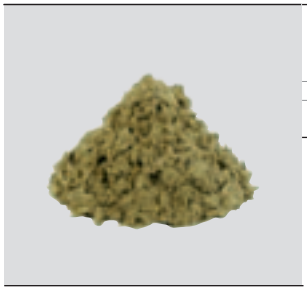
	Performance							Norms
Thermal conductivity	T (°C)	50	100	150	200	250	300	EN 12667
	λ (W/mK)	0.040	0.049	0.057	0.067	0.075	0.091	
Maximum Service Temperature	680°C (1256°F)							EN 14706 ASTM C411
Reaction to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed							EN 13501-1 ASTM E84 (UL 723)
Water absorption	< 1 kg/m²							EN 1609
	Water vapour absorption (Vapor sorption) ± 0,02% vol							ASTM C1104/C1104M
AS quality (Water leachable chloride content)	Chloride content < 10 ppm							EN 13468
	Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871							ASTM C795
	< 10 mg/kg (ph-value neutral to slightly alkaline)							ASTM C871
Water vapour diffusion resistance	μ = 1							EN 12086

ProRox GR 903

NEW NAME

Old name: Rockwool Granulate

Granulate wool



Product	Packaging	Kg/packaging	Kg per 40 ft HC Container*
ProRox GR 903	Bag	20	12000

☐ Lightly compressed and packed in bags

*Approximate quantities.

Applications

ProRox GR 903 is a stone wool granulate with no additives. The granulate is especially suitable for the thermal insulation of cold boxes and air separation plants.

Advantages

- Complies with the most stringent requirements for the insulation of cold boxes
- Chemically inert to steel
- Easy to remove for inspection purposes

Product properties

	Performance							Norms
Thermal conductivity	T (°C)	20	-20	-60	-100	-140	-180	EN 12667
	λ (W/mK)	0.039	0.033	0.027	0.022	0.018	0.015	
AS quality	Chloride content < 10 ppm Conforms to the stainless steel corrosion specification as per ASTM test methods C 692 and C 871 < 10 mg/kg (ph-value neutral to slightly alkaline)							EN 13468 ASTM C795 ASTM C871
Reacton to fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = Passed							EN 13501-1 ASTM E84 (UL 723)

Installation guidelines

The guidelines for the use of granulate wool in cold applications are given in the AGI Q 118 standard. These guidelines are available on request. Please ask your ROCKWOOL Technical Insulation sales consultant.

Delivery and storage

ROCKWOOL Technical Insulation can accept no liability for any faults in installation and deficiencies. The respective terms of general sale and delivery of ROCKWOOL bv, lodged with the Commercial Court under number 13014428. A copy of these conditions can be provided on request.

Delivery service

ROCKWOOL Technical Insulation strives to make all its products readily available. Delivery normally takes place from our dealers' warehouses. However, direct delivery by ROCKWOOL Technical Insulation to the site of installation is also possible. To simplify construction site logistics, deliveries using containers can be arranged. Contact your dealer for more information.

Packaging and storage

Where our goods are supplied packed, packaging is included in the price. The polyethylene used in packaging is free of chlorine and sulphur compounds, and suitable for recycling. ROCKWOOL Technical Insulation products must be stored in the original packaging, protected from the weather and off the ground.

Advice

ROCKWOOL Technical Insulation offers more than just the rapid delivery of the right product. ROCKWOOL can also act as your partner during the design phase to help to resolve technical problems, such as providing advice for complex technical insulation calculations, construction advice and help with drafting specifications.

All the values given in this publication are indicative average values, subject to manufacturing tolerances. ROCKWOOL Technical Insulation retains the right to change product specifications at any time without prior notice.

Notes

ROCKWOOL Technical Insulation

ROCKWOOL© Technical Insulation, a subsidiary of the international ROCKWOOL Group, is the worldwide market leader in technical insulation. With our comprehensive product lines ProRox and SeaRox we cover the whole industrial market and marine & offshore industry, providing a full range of products and systems for the thermal and firesafe insulation of technical applications. Besides sustainable products we offer reliable expert advice, from documentation to delivery and after sales service. Throughout the whole chain from specifier, through dealer to contractor and installer we aim to add value. We don't just sell products, we supply solutions. It's this total approach that makes us the ideal choice for professionalism, innovation and trust.

All explanations correspond to our current range of knowledge and are therefore up-to-date. The examples of use outlined in this document serve only to provide a better description and do not take special circumstances of specific cases into account. ROCKWOOL Technical Insulation places great value upon continuous development of products, to the extent that we too continuously work to improve our products without prior notice. We therefore recommend that you use the most recent issue of our publications, as our wealth of experience and knowledge is always growing. Should you require related information for your specific application or have any technical queries, please contact our sales department or visit our website www.rockwool-rti.com

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The ROCKWOOL Group

The ROCKWOOL Group is the world's leading supplier of innovative products and systems based on stone wool, improving the environment and the quality of life for millions of people. The Group is amongst the global leaders within the insulation industry. Together with other building-related products such as acoustic ceilings, cladding boards and our consultancy business, the Group ensures energy efficient and firesafe buildings with good acoustics and a comfortable indoor climate. We create green solutions for the horticultural industry, inventive special fibres for industrial use, effective insulation for the process industry and marine & offshore as well as noise and vibration systems for modern infrastructure.

Our more than 9,700 employees in more than 40 countries cater for customers all over the world. The Group's head office is located close to Copenhagen. In 2012 the Group generated sales of EUR 1.97 billion. The company is listed on the NASDAQ OMX Nordic Exchange Copenhagen. The Group's operations have a main presence in Europe and we are expanding production, sales and service activities in North and South America and Asia. Together with a broad network of business partners, this ensures that the Group's products and systems reach almost every corner of the globe. For more information, please visit www.rockwool.com

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