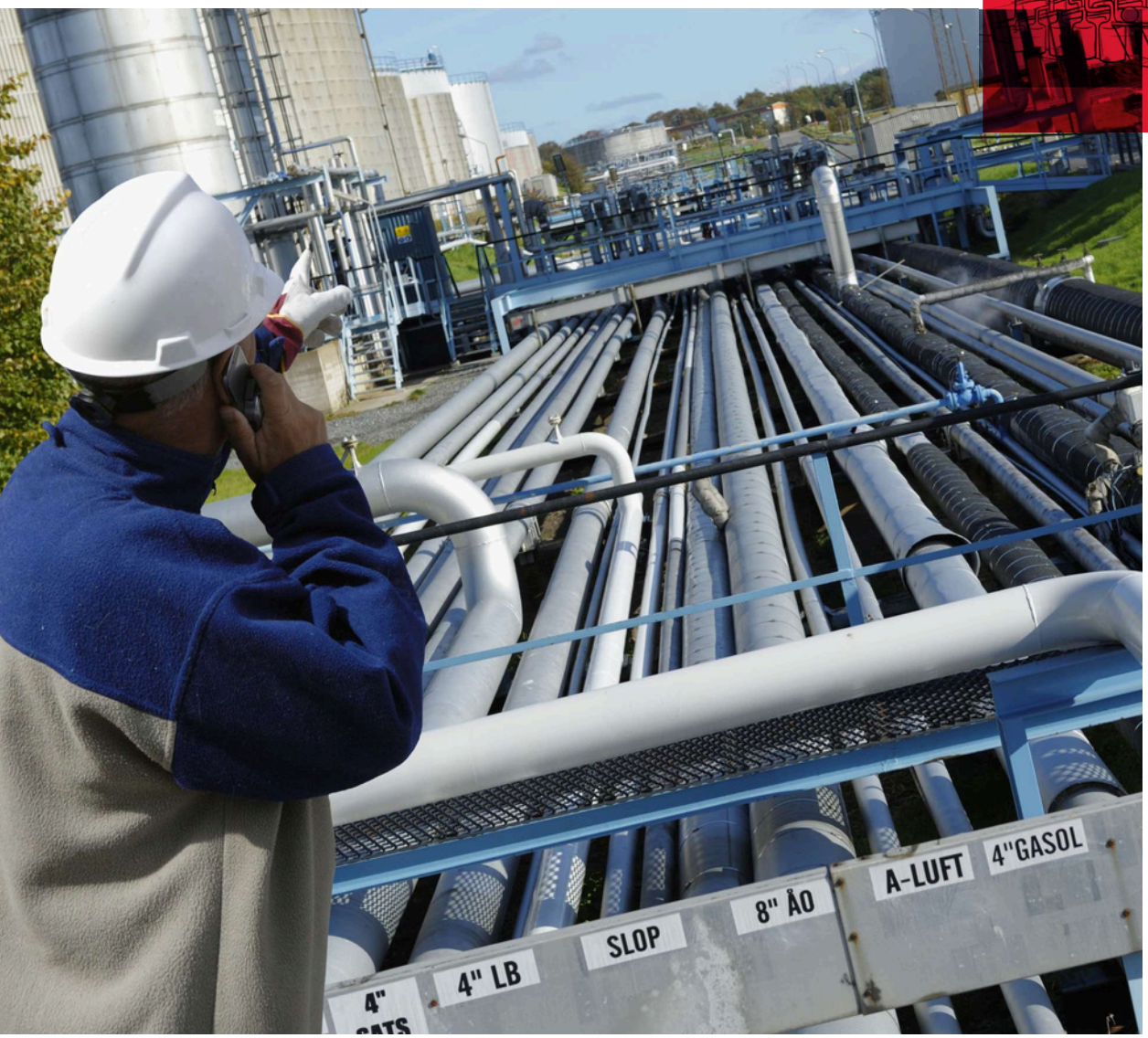
ROCKWOOL®

TECHNICAL INSULATION

ProRox®
Product Catalogue

India



We share our knowledge to your advantage

ROCKWOOL develops innovative technical insulation solutions for the process industry. Through our comprehensive product lines ProRox we offer a full spread of sustainable products and system guaranteeing the highest possible thermal and fire safe insulation of all technical installations.
Our over 80 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 provide the very best service and tools in the market and a total range of cutting-edge insulation solutions.

Indian Green Building Council
FOUNDING MEMBER

EUCEB

Excellent insulation products, outstanding people.

All ROCKWOOL Technical Insulation solutions meet the most stringent quality and safety standards. All ProRox 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

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 CO2 emissions.

eiif European Industrial Insulation Foundation Member

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 and the process industries are given the best and most advanced insulation solution. In the process 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's 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.rockwoolasia.com or contact one of our local sales organisations (see the contact details on the back of this brochure).

The ROCKWOOL Group

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 Group's operations have a large presence in Europe and also facilities in Russia, North America, India and East Asia with more than 11,000 employees in more than 38 countries.

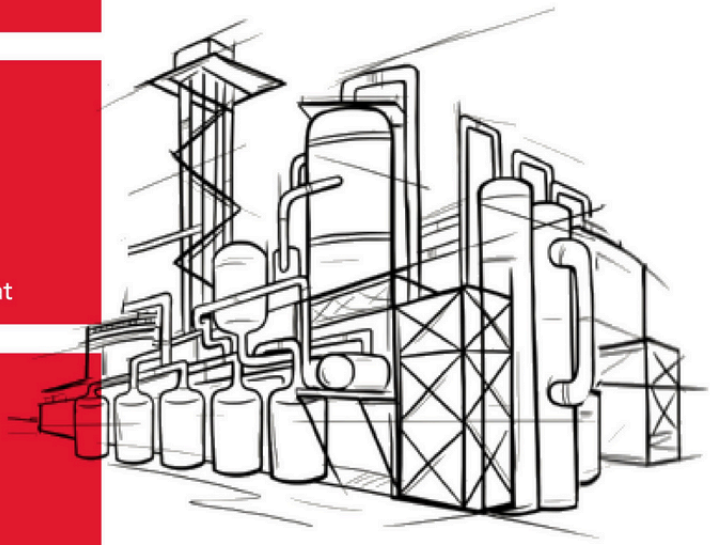
ROCKWOOL products has a melting point above 1000°C

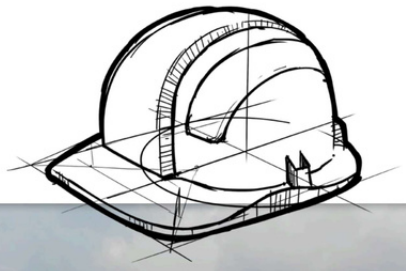
ROCKWOOL products withstand temperatures up to 1000°C, making them exceptionally resistant to fire. This resistance can slow a fire's progress and buy precious time for rescue operations while helping to protect the building's structure from unnecessary damage. Yet while heat and flames are bad enough 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 for the occupants during fire accident.

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, CO_2 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.

Technical insulation shaped by experts.





Project
RAPID Petronas in Pengerang, Malaysia

Materials
Pipe section
Wired mats
Slabs

New product names, logical structure

Each product name is structured in the same clear way:

e.g.: **ProRox WM 970 ALU**

Product range

2 last digits = other product characteristics

- **Product identifier**
  - WM = Wired Mats
  - SL = Slabs
  - PS = Pipe Sections
- **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. Beside you will get an overview of the **ProRox** range and its new names.

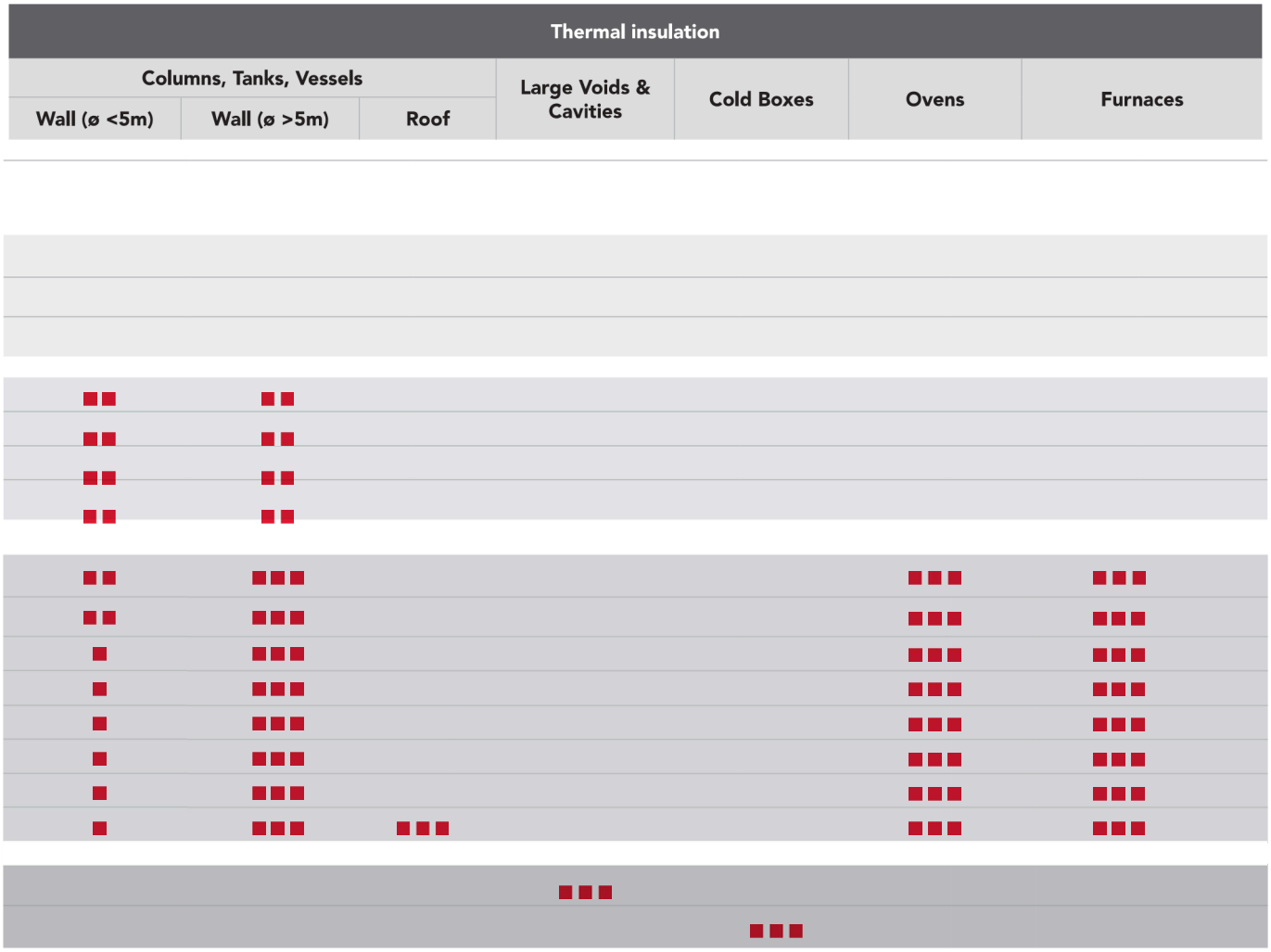
NEW GRADE

Industrial insulation

Application selector

			Thermal insulation	
			Pipe work	
	NEW GRADE	DENSITY	ø <356mm	ø >356mm
Pipe Sections	ProRox PS 960 with WR Tech	100-125kg/m³	■■■	■■
	ProRox PS 970 with WR Tech	140kg/m³	■■■	■■
	ProRox PS 978 with WR Tech	150kg/m³	■■■	■■
Wired Mats	ProRox WM 950	80kg/m³	■	■■■
	ProRox WM 960	100kg/m³	■	■■■
	ProRox WM 970	128kg/m³	■■	■■■
	ProRox WM 988	150kg/m³	■■	■■■
Slabs	ProRox SL 950	80kg/m³		
	ProRox SL 960	100kg/m³		
	ProRox SL 970	115kg/m³		
	ProRox SL 978	128kg/m³		
	ProRox SL 980	145kg/m³		
	ProRox SL 540	160kg/m³		
	ProRox SL 560	175kg/m³		
	ProRox SL 580	150kg/m³		
Loose Wool	ProRox LF 970			
	ProRox GR 903			

Note: All the above selection depends on the process temperature and purpose of the equipment.



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 with WR Tech

ProRox PS 960 is a mandrel wound pipe section. The insulation sections are made out of stone wool and are produced with an innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation.

Pipe section

*Wheelmark is only applicable upon request.

Dimensions **Length: 1000 mm**

Nominal pipe size (NPS) inches	Internal diameter pipe insulation (ASTM C585-10) mm
½	22
¾	27
1	34
1 ¼	43
1 ½	49
2	61
2 ½	74
3	90
3 ½	102
4	115
4 ½	128
5	143
6	170
7	196
8	221
9	246
10	275
11	300
12	326
14	358
16	408.8
18	459.6
20	510.4
22	561.2
24	612

Applications

ProRox PS 960 is a mandrel wound 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 the industrial pipe work.

Compliance

ProRox PS 960 with WR-Tech Pipe Sections comply with the requirements as set by internationally recognized standards like EN 14303, CINI 2.2.03, VDI 2055, ASTM C795, ASTM C547: Grade A for Type I, II, IV.

ProRox PS 960 with WR Tech

Pipe section

Installation guidelines

Assembly

Fit the ProRox PS 960 with WR-Tech 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 0.5mm, at least 3/m). For insulation thickness above 100mm (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 4m
- Vertical pipe work: 5 to 6m

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.

Note

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

Advantages

- Innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation
- 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

Properties	Performance								Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	350	
	λ(W/mK)	0.038	0.044	0.050	0.058	0.068	0.080	0.092	ASTM C335
	λ(W/mK)	0.041	0.046	0.053	0.063	0.075	0.087	-	IS 3346
Nominal Density	100-125 kg/m^3								ASTM C302/IS 3144
Maximum Use Temperature	650°C								ASTM C447
Sag Resistance	≤ 5% at 650°C								ASTM C411
Heat Resistance	No visible deterioration of fibrous structure. No evidence of self heating. No fusion of fibres at 650°C								IS 3144
Linear Shrinkage	≤ 2 % at 650°C								ASTM C356
Surface Burning Characteristics	Flame spread index = Passed; Smoke developed = Passed								ASTM E84
Reaction to fire	Euroclass A1/Non-combustible								EN 13501-1/ IMO 2010 FTPC
Corrosion resistance	Evaluation on external stress corrosion cracking tendency of austenitic stainless steel = Passed Chemical analysis for Cl^-, Fl^-, Na^+, SiO_4^{4+}: Results fall within acceptability limits of ASTM C795 Trace quantity of water leachable chloride ions: ≤10 ppm								ASTM C692 /ASTM C871 ASTM C795 EN 13468/IS 3144
Water absorption	≤ 0.04 lb/ft^2 (≤ 0.2 kg/m^2) ≤ 0.04 lb/ft2 (≤0.2 kg/m^2) (After 24 hrs. pre-heating at 482°F (250°C))								EN 13472
Vapor sorption/ Moisture Absorption	< 1% Weight								ASTM C1104/C1104M
Sulphur Content	<0.3 Vol %								IS 3144
pH	7-10								IS 3144
Shot Content	>250 microns<8wt% >500 microns<3wt%								IS 3144
Influence on coating systems	Free from substances (e.g. silicone oil) that might impair surface wetting								VW 3.10.7

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

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ProRox PS 970 with WR Tech

ProRox PS 970 is a mandrel wound pipe section. The insulation sections are made out of stone wool and are produced with an innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation.

Heavy duty pipe section

*Wheelmark is only applicable upon request.

Dimensions **Length: 1000 mm**

Nominal pipe size (NPS) inches	Internal diameter pipe insulation (ASTM C585-10) mm
½	22
¾	27
1	34
1 ¼	43
1 ½	49
2	61
2 ½	74
3	90
3 ½	102
4	115
4 ½	128
5	143
6	170
7	196
8	221
9	246
10	275
11	300
12	326
14	358
16	408.8
18	459.6
20	510.4
22	561.2
24	612

Applications

ProRox PS 970 with WR-Tech is a mandrel wound high density stone wool pipe section. The sections are supplied split and hinged for easy snap-on assembly, and are specially 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 with WR-Tech Pipe Sections comply with the requirements as set by internationally recognized standards like EN 14303, CINI 2.2.03, VDI 2055, ASTM C795, ASTM C547: Grade A for Type I, II, IV.

ProRox PS 970 with WR Tech

Heavy duty pipe section

Installation guidelines

Assembly

Fit the ProRox PS 970 with WR-Tech 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 0.5mm, at least 3/m). For insulation thickness above 100mm (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 4m
- Vertical pipe work: 5 to 6m

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.

Note

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

Advantages

- Innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation
- 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

Properties	Performance								Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	350	ASTM C335 IS 3346
	λ(W/mK)	0.038	0.043	0.050	0.057	0.066	0.076	0.087	
	λ(W/mK)	0.040	0.045	0.052	0.061	0.072	0.084	-	
Nominal Density	140 kg/m^3								ASTM C302/IS 3144
Maximum Use Temperature	650°C								ASTM C447
Sag Resistance	≤ 5% at 650°C								ASTM C411
Heat Resistance	No visible deterioration of fibrous structure. No evidence of self heating. No fusion of fibres at 650°C								IS 3144
Linear Shrinkage	≤ 2 % at 650°C								ASTM C356
Surface Burning Characteristics	Flame spread index = Passed; Smoke developed = Passed								ASTM E84
Reaction to fire	Euroclass A1/Non-combustible								EN 13501-1/ IMO 2010 FTPC
Corrosion resistance	Evaluation on external stress corrosion cracking tendency of austenitic stainless steel = Passed Chemical analysis for Cl^- , Fl^- , Na^+ , SiO_3^{4+}: Results fall within acceptability limits of ASTM C795 Trace quantity of water leachable chloride ions: ≤10 ppm								ASTM C692 /ASTM C795 ASTM C871/ASTM C795 EN 13468/IS 3144
Water absorption	≤ 0.04 lb/ft^2 (≤0.2 kg/m^2) ≤ 0.04 lb/ft2 (0.2 kg/m^2) (After 24 hrs. pre-heating at 482°F (250°C))								EN 13472
Vapor sorption/ Moisture Absorption	< 1% Weight								ASTM C1104/C1104M
Sulphur Content	<0.3 Vol %								IS 3144
pH	7-10								IS 3144
Shot Content	>250 microns<8wt% >500 microns<3wt%								IS 3144
Influence on coating systems	Free from substances (e.g. silicone oil) that might impair surface wetting								VW 3.10.7

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

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ProRox PS 978 with WR Tech

ProRox PS 978 is a mandrel wound pipe section. The insulation sections are made out of stone wool and are produced with an innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation.

Heavy duty pipe section

Dimensions **Length: 1000 mm**

Nominal pipe size (NPS) inches	Internal diameter pipe insulation (ASTM C585-10) mm
½	22
¾	27
1	34
1 ¼	43
1 ½	49
2	61
2 ½	74
3	90
3 ½	102
4	115
4 ½	128
5	143
6	170
7	196
8	221
9	246
10	275
11	300
12	326
14	358
16	408.8
18	459.6
20	510.4
22	561.2
24	612

Applications

ProRox PS 978 with WR-Tech is a mandrel wound high density stone wool pipe section. The sections are supplied split and hinged for easy snap-on assembly, and are specially 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 978 with WR-Tech Pipe Sections comply with the requirements as set by internationally recognized standards like EN 14303, CINI 2.2.03, VDI 2055, ASTM C795, ASTM C547: Grade A for Type I, II, IV.

ProRox PS 978 with WR Tech

Heavy duty pipe section

Installation guidelines

Assembly

Fit the ProRox PS 978 with WR-Tech 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 0.5mm, at least 3/m). For insulation thickness above 100mm (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 4m
- Vertical pipe work: 5 to 6m

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.

Note

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

Advantages

- Innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation
- 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

Properties	Performance								Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	350	ASTM C335
	λ(W/mK)	0.038	0.043	0.049	0.057	0.066	0.076	0.087	
	λ(W/mK)	0.039	0.044	0.050	0.059	0.070	0.081	-	IS 3346
Nominal Density	150 kg/m^3								ASTM C302/IS 3144
Maximum Use Temperature	650°C								ASTM C447
Sag Resistance	5% at 650°C								ASTM C411
Heat Resistance	No visible deterioration of fibrous structure. No evidence of self heating. No fusion of fibres at 650°C								IS 3144
Linear Shrinkage	≤ 2 % at 650°C								ASTM C356
Surface Burning Characteristics	Flame spread index = Passed; Smoke developed = Passed								ASTM E84
Reaction to fire	Euroclass A1/Non-combustible								EN 13501-1/ IMO 2010 FTPC
Corrosion resistance	Evaluation on external stress corrosion cracking tendency of austenitic stainless steel = Passed Chemical analysis for Cl^- , Fl^- , Na^+ , SiO_4^{4+}: Results fall within acceptability limits of ASTM C795 Trace quantity of water leachable chloride ions: ≤10 ppm								ASTM C692 /ASTM C795 ASTM C871/ASTM C795 EN 13468 /IS 3144
Water absorption	≤ 0.04 lb/ft^2 (≤0.2 kg/m^2) ≤ 0.04 lb/ft2 (≤0.2 kg/m^2) (After 24 hrs. pre-heating at 482°F (250°C))								EN 13472
Vapor sorption/ Moisture Absorption	< 1% Weight								ASTM C1104/C1104M IS 3144
Sulphur Content	<0.3 Vol %								IS 3144
pH	7-10								IS 3144
Shot Content	>250 microns<8wt% >500 microns<3wt%								IS 3144
Influence on coating systems	Free from substances (e.g. silicone oil) that might impair surface wetting								VW 3.10.7

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

ProRox WM 950

Wired mat

Dimensions			
Standard Width: 600 mm		Standard Width: 1200 mm	
Thickness (mm)	Length (mm)	Thickness (mm)	Length (mm)
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 950 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 reaching 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.

Compliance

ProRox WM 950 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) 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, 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

Wired mat

Note

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

Advantages

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

*Wheelmark is only applicable upon request.

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.046	0.053	0.062	0.071	0.080	ASTM C177
	λ (W/mK)	0.041	0.048	0.057	0.068	0.080	0.095	IS 3346
Nominal Density	80 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 400°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.

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°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.

ProRox WM 960

Heavy duty wired mat

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 properties[1]

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.

ProRox WM 970

Heavy duty wired mat

Dimensions

Standard Width: 600 mm	
Thickness (mm)	**Length (mm)**
30	8000
40	6000
50	5000
60	4000
75	4000
80	3000
90	3000

Standard Width: 1200 mm	
Thickness (mm)	**Length (mm)**
30	8000
40	6000
50	5000
60	4000
75	4000
80	3000
90	3000

Applications

ProRox WM 970 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 extreme demands are made on the temperature resistance of the insulation. Stainless steel mesh, stainless steel binding wire and/or aluminium foi l facing are available upon request.

Compliance

ProRox WM 970 Wired Mats fully comply with the requirements as set by internationally recognized standards like 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°C should preferably be insulated with ProRox WM 970, 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

ProRox WM 970

Heavy duty wired mat

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 properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.043	0.050	0.057	0.066	0.076	ASTM C177
	λ (W/mK)	0.040	0.047	0.054	0.063	0.074	0.086	IS 3346
Nominal Density	128 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 750°C							IS 3144
Maximum Service Temperature	750°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.

ProRox WM 988

Heavy duty wired mat

Dimensions			
Standard Width: 600 mm		Standard Width: 1200 mm	
Thickness (mm)	Length (mm)	Thickness (mm)	Length (mm)
40	6000	40	6000
50	5000	50	5000
60	4000	60	4000
75	4000	75	4000
80	1500	80	1500

Applications

ProRox WM 988 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 extreme 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 988 Wired Mats fully comply with the requirements as set by internationally recognized standards like 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°C should preferably be insulated with ProRox WM 970, 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 988

Heavy duty wired mat

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.043	0.048	0.055	0.064	0.076	ASTM C177
	λ (W/mK)	0.039	0.047	0.055	0.064	0.075	0.086	IS 3346
Nominal Density	150 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 750°C							IS 3144
Maximum Service Temperature	750°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.

ProRox SL 950

Rigid slab

Applications

ProRox SL 950 is a strong and rigid stone wool slab and is especially developed for the thermal and acoustic insulation of high temperature columns and vessels.

Compliance

ProRox SL 950 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612 Type IA, II, III, IVA and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	9.6	2520
30	1000	600	6.0	2016
50	1000	600	4.8	1296
75	1000	600	3.0	864
100	1000	600	2.4	648

Advantages

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.046	0.053	0.062	0.072	0.082	ASTM C177
	λ (W/mK)	0.041	0.049	0.059	0.069	0.080	0.091	IS 3346
Nominal Density	80 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 400°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.

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ProRox SL 960

Rigid slab

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.

Compliance

ProRox SL 960 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612 Type IA, II, III, IVA, IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
25	1000	600	8.4	2520
30	1000	600	6.0	2016
40	1000	600	3.6	1663
50	1000	600	3.6	1210
75	1000	600	2.4	806
100	1000	600	1.8	605

Advantages

- Excellent thermal and acoustic insulation
- Resistant to high temperatures

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.044	0.051	0.059	0.069	0.080	ASTM C177
	λ (W/mK)	0.041	0.048	0.058	0.068	0.078	0.089	IS 3346
Nominal Density	100 kg/m³							ASTM C303/ 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.

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ProRox SL 970

High temperature slab

Applications

ProRox SL 970 is a strong and rigid stone wool slab suitable 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, ASTM C612 Type IA, II, III, IVA, IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
40	1000	600	4.8	1575
50	1000	600	3.6	1210
75	1000	600	1.8	840.6
100	1000	600	1.8	630

Advantages

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.043	0.049	0.056	0.064	0.074	ASTM C177
	λ (W/mK)	0.041	0.047	0.055	0.065	0.075	0.087	IS 3346
Nominal Density	115 kg/m³							ASTM C303/ 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.

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ProRox SL 978

High temperature slab

Applications

ProRox SL 978 is a strong and rigid stone wool slab suitable 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 978 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612, Type IA, II, III, IVA, IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
40	1000	600	4.8	1613
50	1000	600	3.6	1210
75	1000	600	1.8	810
100	1000	600	1.8	619.2

Advantages

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.043	0.049	0.056	0.066	0.078	ASTM C177
	λ (W/mK)	0.041	0.049	0.057	0.065	0.075	0.086	IS 3346
Nominal Density	128 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 750°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.

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ProRox SL 980

Heavy duty slab

Applications

ProRox SL 980 is a strong and rigid stonewool slab especially designed for the thermal and acoustic insulation of constructions where high demands are made on the temperature resistance and mechanical strength 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, IS 3144, ASTM C612 Type IA and IB, II, III, IVA, IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
30	1000	600	3.6	2100
40	1000	600	3.0	1638
50	1000	600	2.4	1310
75	1000	600	1.8	824.4
100	1000	600	1.2	630

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.043	0.049	0.056	0.064	0.074	ASTM C177
	λ (W/mK)	0.040	0.047	0.055	0.064	0.074	0.084	IS 3346
Nominal Density	145 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 750°C							IS 3144
Maximum Service Temperature	750°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.

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ProRox SL 540

Compression resistant slab

Applications
ProRox SL 540 is a highly compression resistant stone wool slab for thermal and acoustic insulation of constructions where high temperatures and light mechanical loads occur.

Compliance
ProRox SL 540 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612 Type IA, IB, II, III, IVA and IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
30	1000	600	4.8	2100
40	1000	600	3.6	1663
50	1000	600	2.4	1301
75	1000	600	1.8	840.6
100	1000	600	1.8	630

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.045	0.052	0.062	0.070	0.079	ASTM C177
	λ (W/mK)	0.039	0.045	0.053	0.063	0.073	0.083	IS 3346
Nominal Density	160 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 750°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
Compressive Strength	Up to 25kPa (At 10% deformation)							EN 826
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.

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ProRox SL 560

Compression resistant slab

Applications

ProRox SL 560 is a higly compression resistant stone wool slab for thermal and acoustic insulation of constructions where high temperatures and light mechanical loads occur.

Compliance

ProRox SL 560 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612 Type IA, IB, II, III, IVA and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
30	1000	600	2.4	2100
40	1000	600	2.4	1613
50	1000	600	1.8	1285
75	1000	600	1.8	826.2
100	1000	600	1.2	655

Advantages

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.037	0.042	0.048	0.055	0.063	0.074	ASTM C177
	λ (W/mK)	0.039	0.044	0.051	0.060	0.071	0.082	IS 3346
Nominal Density	175 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 750°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
Compressive Strength	Up to 30kPa (At 10% deformation)							EN 826
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.

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ProRox SL 580

Compression resistant slab

Applications

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

Compliance

ProRox SL 580 Slabs fully comply with the requirements as set by internationally recognized standards like EN14303, CINI 2.2.01, ASTM C612 Type IA, IB, II, III, IVA, IVB and IS 8183.

Approximate quantities per 40ft HC container in m²

Thickness (mm)	Length (mm)	Width (mm)	Packaging m²/pack	m² per 40ft HC container*
30	1000	600	3.0	2100
40	1000	600	3.0	1638
50	1000	600	2.4	1310
75	1000	600	1.8	826.2
100	1000	600	1.2	630

Advantages

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

Product properties[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	50	100	150	200	250	300	
	λ (W/mK)	0.038	0.042	0.048	0.055	0.064	0.074	ASTM C177
	λ (W/mK)	0.039	0.045	0.051	0.060	0.070	0.082	IS 3346
Nominal Density	150 kg/m³							ASTM C303/ IS 3144
Heat Resistance	No visible deterioration of the fibrous structure. No evidence of self heating. No fusion of fibers at 250°C							IS 3144
Maximum Service Temperature	250°C							ASTM C411/C447
Linear Shrinkage	Less than 2% (at max service temperature)							ASTM C356
Incombustibility	<5 wt%							IS 3144
Compressive Strength	Up to 50kPa (At 10% deformation)							EN 826
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% > 500µm <3 wt%							IS 3144

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

EUCEB

ProRox LF 970

Loose fill

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[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°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/m Water vapour absorption (Vapor sorption) ± 0.02% vol							EN 1609 ASTM C1104/ C1104M
Water Leachable Chloride Content (AS Quality)	Chloride content < 10 ppm Conforms to the stainless steel corrosion specification as per ASTM test methods C692 and C871 < 10 mg/kg (ph-value neutral to slightly alkaline)							EN 13468 ASTM C795 ASTM C871
Water Vapour Diffusion Resistance	μ = 1							EN 12086

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

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ProRox GR 903

Granulate wool

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.

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.

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[1]

Properties	Performance							Standard
Thermal Conductivity[2]	Mean Temp (°C)	-180	-140	-100	-60	-20	20	EN 12667
	λ (W/mK)	0.015	0.018	0.022	0.027	0.033	0.039	
Water Leachable Chloride Content (AS Quality)	Chloride content < 10 ppm Conforms to the stainless steel corrosion specification as per ASTM test methods C692 and C871 < 10 mg/kg (ph-value neutral to slightly alkaline)							EN 13468 ASTM C795 ASTM C871
Reaction to Fire	EuroClass A1 Surface burning characteristics; Flame spread = passed, Smoke development = passed							EN 13501-1 ASTM E84 (UL 723)

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

Guidelines on Handling and Storage of Insulation Material

All handling, transporting and storage of insulation materials shall be done in a manner that will prevent / minimize the contamination from external sources.

Handling of insulation materials with bare hands is to be avoided, clean polyethylene gloves recommended.
Provisions and responsibility for special transportation or packaging shall be agreed upon between the purchaser and the seller or manufacturer.

Insulation materials shall be placed on non-contaminated pallets or shoring to prevent direct contact with the ground or floor. Products are not to be stored with direct exposure to wet condition (e.g. water, rains, frost etc.) nor near the heat source and direct sunlight. This is to prevent water ingress and condensation of humidity inside the packs as well as to prevent the deterioration of packaging foil by UV-light.

Surfaces of the piping / equipment have the potential to be contaminated from external sources, such as but not limited to airborne sea mist carried by onshore winds, chemical fumes, ink from marking pens, adhesive on tape, accidental spills of water-soluble corrosive ion bearing materials, melting salts used to clear ice and snow, and many other ways. The contaminant shall be removed from the surface before insulation is applied and precautions shall be taken to prevent their entrance during and after the installation.

Installed / uninstalled products are to be protected from direct exposure to wet weather (e.g. rains).

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