



Protecting High Temperature Workplaces and the Environment: ROXUL® Industrial/Mechanical Insulation

ROXUL® offers three high-performance, insulation product configurations for demanding industrial/ mechanical applications where high temperature, mechanical loads and moisture resistance are concerns. ProRox® boards/slabs, flexible boards/slabs and wraps/mats are stone wool (mineral wool) based insulation products made from natural stone and recycled content. ROXUL is suitable for use in petro-chemical, power generation plants, boilers, furnaces, towers, ovens and drying equipment.

The ProRox assortment is available in different product specifications to meet various application requirements.

Facings

ProRox boards (slabs) are available with reinforced, flame-resistant aluminum foil facer. ProRox flexible boards (slabs) and wraps (mats) can be laminated with black mat scrim for easy marking and cutting.

Compressive Resistance

ROXUL's ProRox 500 Series products are engineered to provide exceptional strength to resist installation and delivery damage, as well as withstand high traffic areas onsite.

Energy-Saving Thermal Performance

The low thermal conductivity of ROXUL products result in energy savings in areas where it's needed most. ROXUL's ProRox 900 Series products deliver consistent thermal performance across the board, from petrochemical plants to power generation industries. In many applications, less product can be used and greater energy efficiency achieved with reduced insulated diameter and overall jacketing costs.



Easy Installation

All ROXUL® industrial/mechanical insulation is easy to handle on job sites. They're simple to cut with a serrated knife for clean straight edges providing a better fit at the point of installation. Quick and easy cutting means less waste and faster installation, which saves money on labor and lost production time. Quick and easy cutting also means fast and simple routine maintenance.



Fire Resistant, Non-Combustible Insulation

The combination of stone wool and recycled content in all of ROXUL's insulations makes these products fire-resistant. ROXUL products are classified non-combustible as determined by ASTM E136 and CAN/ULC S114. It will not develop smoke or promote flame spread, even when directly exposed to fire, as many other insulation materials will. These industrial/mechanical products are designed for operating temperatures up to a maximum of 1200 °F (650 °C), withstanding the heat of up to 2150 °F (1177 °C) without melting. ROXUL ProRox® insulations have excellent fire-resistant properties and assist in providing personnel protection in industrial settings.

Technical Expertise

ROXUL® insulation is able to draw on in-depth expertise to ensure that end users are given the best and most advanced insulation solution. ROXUL stone wool products offer the best possible protection against heat along with energy loss, fire, noise and other unwanted influences. Our team will be delighted to assist you in developing technical and project specifications.



Water Repellent

ROXUL products do no absorb water or hold moisture, making it ideal for applications where moisture is expected to penetrate the system. The ProRox product line is impregnated with water repellent characteristics that drain water away so thermal conductivity is not affected. It does not corrode metals or promote the growth of fungi, mildew or bacteria.

Insulation is a readily available technology and the most economical approach to reducing energy consumption.

ProRox® 900 Series NEW NAME

Thermal Insulation Boards (Slabs)

ProRox 900 Series is designed for high temperature applications where thermal performance is essential. With low thermal conductivity, the 900 Series ideal for variety of temperatures while offering strong acoustical performance. This series of versatile boards (slabs) come in a variety of densities and dimensions and are available with specific facings upon request. All products are easy to cut and install, fire resistant and water repellent.

Benefits:

- Designed for thermal insulation of intermediate and high temperature applications
- Excellent fire resistance properties
- Non combustible
- Melting point of approximately 2150°F (1177°C)
- Service temperature of 1200°F (650°C)
- Chemically inert
- Water repellent yet vapor permeable

900 Series Product Offering

Product name	Formerly	Description
ProRox SL 920 ^{NA}	RHT 30	Semi rigid board (slab) for intermediate temperature applications
ProRox SL 930 ^{NA}	RHT 40	Semi rigid board (slab) for intermediate to high temperature applications
ProRox SL 940 ^{NA}	RHT 60	Rigid board (slab) for high temperature applications
ProRox SL 960 ^{NA}	RHT 80	Rigid board (slab) for high temperature applications subject to light mechanical loads
ProRox FSL 920 ^{NA}	RHT 30 Flex	Flexible board (slab) for intermediate temperature applications
ProRox FSL 930 ^{NA}	RHT 40 Flex	Flexible board (slab) for intermediate to high temperature applications
ProRox FSL 940 ^{NA}	RHT 60 Flex	Flexible board (slab) for high temperature applications
ProRox FSL 960 ^{NA}	RHT 80 Flex	Flexible board (slab) for high temperature applications subject to light mechanical loads
ProRox MA 930 ^{NA}	RHT 40 Wrap	Rolled wrap (mat) for intermediate to high temperature applications
ProRox MA 940 ^{NA}	RHT 60 Wrap	Rolled wrap (mat) for high temperature applications

ProRox° SL 900 Series Boards



Formerly: RHT® 30, 40, 60 & 80 Boards

ProRox SL 900 Series boards (slabs) includes semi-rigid to rigid thermal insulation boards (slabs) for industrial applications. The SL 900 lineup includes a variety of densities that can deliver exceptional thermal performance for specific temperature ranges, while also providing strong durability and acoustical properties. All products are easy to cut and install plus are fire resistant and water repellant.

Compliance and Applications

Applications

Product	Nominal Density	Actual Density	Applications
ProRox SL 920 ^{NA}	3 lbs/ft³ (48 kg/m³)	2.5 lbs/ft³ (40 kg/m³)	Thermal insulation of horizontal and vertical walls in intermediate temperature ranges
ProRox SL 930 ^{NA}	4 lbs/ft³ (64 kg/m³)	3.5 lbs/ft³ (56 kg/m³)	Thermal insulation of walls in intermediate to high temperature ranges (ex. Tank walls, industrial buildings)
ProRox SL 940 ^{NA}	6 lbs/ft³ (96 kg/m³)	4.4 lbs/ft³ (70 kg/m³)	Thermal insulation in high temperature ranges (ex. Oven equipment, furnaces, vessels, large diameter piping)
ProRox SL 960 ^{NA}	8 lbs/ft³ (128 kg/m³)	5.8 lbs/ft³ (93 kg/m³)	Thermal insulation in high temperature ranges (ex. Tanks, vessels, industrial duct work)

Compliance

Product	ASTM C612 (Standard for Board)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C665 and C795 (Corrosion Resistance)
ProRox SL 920 ^{NA}	Type IVA	Pass	Pass
ProRox SL 930 ^{NA}	Type IVA	Pass	Pass
ProRox SL 940 ^{NA}	Type IVB	Pass	Pass
ProRox SL 960 ^{NA}	Type IVB	Pass	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox SL 920 ^{NA}	0.27	0.34	0.42	0.53	0.66		
ProRox SL 930 ^{NA}	0.26	0.30	0.37	0.45	0.55	0.67	
ProRox SL 940 ^{NA}	0.26	0.30	0.36	0.42	0.51	0.61	0.73
ProRox SL 960 ^{NA}	0.24	0.29	0.35	0.41	0.47	0.56	0.68

Facings: available on select ROXUL products upon request

ProRox® FSL 900 Series Flexible Boards



Formerly: RHT® 30, 40, 60 & 80 Flex

ProRox FSL 900 Series includes a range of flexible stone wool thermal insulation boards (slabs) for industrial applications. The FSL 900 lineup includes a variety of densities that can deliver exceptional thermal performance for specific temperature ranges, while also providing strong durability and acoustical properties. The FSL series is often used for irregularly shaped mechanical equipment. All products are easy to cut and install, fire resistant and water repellent.

Compliance and Applications

Applications

Product	Nominal Density	Actual Density	Applications
ProRox FSL 920 ^{NA}	3 lbs/ft³ (48 kg/m³)	2.5 lbs/ft³ (40 kg/m³)	Thermal insulation of irregular shaped equipment in intermediate temperature ranges (ex. Towers)
ProRox FSL 930 ^{NA}	4 lbs/ft³ (64 kg/m³)	3.5 lbs/ft³ (56 kg/m³)	Thermal insulation of irregular shaped equipment in intermediate to high ranges (ex. Industrial buildings)
ProRox FSL 940 ^{NA}	6 lbs/ft³ (96 kg/m³)	4.4 lbs/ft³ (70 kg/m³)	Thermal insulation of irregular shaped equipment in high temperature ranges (ex. Furnaces, industrial buildings)
ProRox FSL 960 ^{NA}	8 lbs/ft³ (128 kg/m³)	5.8 lbs/ft³ (93 kg/m³)	Thermal insulation of irregular shaped equipment in high temperature ranges (ex. Boilers, distillation columns, vessels, and tanks)

Compliance

Product	ASTM C553 (Standard for Blanket Thermal)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C665 and C795 (Corrosion Resistance)
ProRox FSL 920 ^{NA}	Type VII	Pass	Pass
ProRox FSL 930 ^{NA}	Type VII	Pass	Pass
ProRox FSL 940 ^{NA}	Type VII	Pass	Pass
ProRox FSL 960 ^{NA}	Type VII	Pass	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox FSL 920 ^{NA}	0.27	0.34	0.42	0.53	0.66		
ProRox FSL 930 ^{NA}	0.26	0.32	0.39	0.51	0.63	0.78	
ProRox FSL 940 ^{NA}	0.25	0.30	0.36	0.42	0.52	0.63	0.75
ProRox FSL 960 ^{NA}	0.24	0.29	0.34	0.40	0.48	0.60	0.73

Facings: available on select ROXUL products upon request

ProRox® MA 900 Series Wraps



Formerly: RHT® 40 & 60 Wraps

ProRox MA 900 Series includes a range of stone wool insulation wraps (mats) for thermal industrial applications. The MA 900 lineup delivers exceptional thermal performance for different temperature ranges, while also providing strong durability and acoustical properties. The MA 900 Series is often used for round and irregularly shaped mechanical equipment. All products are easy to cut and install, fire resistant and water repellent.

Compliance and Applications

Applications

Product	Nominal Density	Actual Density	Applications
ProRox MA 930 ^{NA}	4 lbs/ft³ (64 kg/m³)	3.5 lbs/ft³ (56 kg/m³)	Thermal insulation of round and irregular shaped equipment in intermediate to high temperature ranges (ex. Towers, vessels, large diameter pipe)
ProRox MA 940 ^{NA}	6 lbs/ft³ (96 kg/m³)	4.4 lbs/ft³ (70 kg/m³)	Thermal insulation of irregular shaped equipment in high temperature ranges (ex. Boilers, columns, vessels)

Compliance

Product	ASTM C553 (Standard for Blanket)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C665 and C795 (Corrosion Resistance)
ProRox MA 930 ^{NA}	Type VII	Pass	Pass
ProRox MA 940 ^{NA}	Type VII	Pass	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox MA 930 ^{NA}	0.26	0.30	0.37	0.45	0.55	0.67	
ProRox MA 940 ^{NA}	0.26	0.30	0.36	0.42	0.51	0.61	0.73

Facings: available on select ROXUL products upon request

ProRox® 500 Series Boards



ROXUL® offers a comprehensive lineup of thermal stone wool insulation boards (slabs) for applications subject to foot traffic where high resistance to mechanical loads is a concern. These compression boards (slabs) have low thermal conductivity in intermediate and high temperature ranges, offer strong acoustical performance, and are highly pressure resistant. This series of versatile boards (slabs) come in a variety of densities and dimensions and are available with specific facings upon request. All products are easy to cut and install, fire resistant and water repellent.

Compression Resistant Boards

Benefits:

- Developed for thermal insulation subject to foot traffic where high resistance to mechanical loads is a concern
- Exceptional compressive strength
- Excellent fire resistance properties
- Non combustible
- Melting point of approximately 2150°F (1177°C)
- Service temperature of 1200°F (650°C)
- Chemically inert
- Water repellent yet vapor permeable

500 Series Product Offering

Product name	Formerly	Description
ProRox SL 540 ^{NA}	RHT 100	Pressure resistant rigid board (slab) for high temperature applications subject to light mechanical loads
ProRox SL 560 ^{NA}	RHT 120	Pressure resistant rigid board (slab) for high temperature applications subject to medium mechanical loads
ProRox SL 590 ^{NA}	RHT 150	Pressure resistant rigid board (slab) for thermal insulation of tank tops (vessel heads) exposed to foot traffic or constructions subject to heavy mechanical loads



ProRox® 500 Series Boards



Formerly: RHT® 100, 120 & 150 Boards

ProRox SL 500 Series includes rigid thermal insulation boards (slabs) for industrial applications subject to foot traffic and mechanical loads. The SL 500 lineup includes a variety of densities that can deliver exceptional compressive strength while also providing strong thermal performance in intermediate and high temperature ranges. All products are easy to cut and install, fire resistant and water repellent.

Compliance and Applications

Applications

Product	Nominal Density	Actual Density	Applications
ProRox SL 540 ^{NA}	10 lbs/ft3 (160 kg/m3)	7.6 lbs/ft3 (122 kg/m3)	Thermal insulation subject to light mechanical loads (ex. End caps)
ProRox SL 560 ^{NA}	12 lbs/ft3 (192 kg/m3)	8.6 lbs/ft3 (137 kg/m3)	Thermal insulation subject to intermediate mechanical loads (ex. End caps, surface areas where ladders are used)
ProRox SL 590 ^{NA}	15 lbs/ft3 (240 kf/m3)	11 lbs/ft3 (176 kg/m3)	Thermal insulation subject to foot traffic and heavy mechanical loads (ex. Tank tops)

Compliance

Product	ASTM C612 (Standard for Board)	ASTM C165 (Compressive Strength)	ASTM C665 and C795 (Corrosion Resistance)
ProRox SL 540 ^{NA}	Type IVB	313 psf (15 kPa) @10%	Pass
ProRox SL 560 ^{NA}	Type IVB	418 psf (20 kPa) @10%	Pass
ProRox SL 590 ^{NA}	Type IVB	1220 psf (58.5 kPa) @10%	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox SL 540 ^{NA}	0.25	0.29	0.35	0.41	0.47	0.54	0.66
ProRox SL 560 ^{NA}	0.27	0.29	0.34	0.40	0.45	0.52	0.61
ProRox SL 590 ^{NA}	0.27	0.32	0.36	0.42	0.48		

Facings: available on select ROXUL products upon request

ProRox® SL 760™ Series Board



Comfort / Multi-purpose Insulation

ROXUL® offers a premium comfort insulation product to be used when acoustics, fire protection and thermal performance are a concern. The ProRox SL 760^{NA} is a non-combustible, semi-rigid, water repellent, light weight stone wool insulation board (slab) that can be used as a fabricated board (slab) for light weight panel applications.

Benefits:

- Lightweight and easy to install
- Service temperature of 1200°F (650°C)
- Non-combustible
- Excellent thermal resistance
- Low moisture sorption
- Non-corrosive and chemically inert
- CFC and HCFC free product and process
- Water repellent yet vapor permeable

Compliance and Applications

Product	Nominal Density	Actual Density	ASTM C612 (Standard for Board)	ASTM C665 and C795 (Corrosion Resistance)	Applications
ProRox SL 760 ^{NA}	3.5 lbs/ft³ (56 kg/m³)	3 lbs/ft³ (48 kg/m³)	Type IVA	Pass	Thermal, acoustical and fire safe insulation for light weight panel production (ex. On site living quarters, industrial HVAC systems)

Acoustical Performance

ASTM C423 CO-EFFICIENTS AT FREQUENCIES

Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.5"	0.18	0.44	0.94	1.04	1.02	1.03	0.85
2.0"	0.28	0.60	1.09	1.09	1.05	1.07	0.95
3.0"	0.52	0.96	1.18	1.07	1.05	1.05	1.05
4.0"	0.86	1.11	1.20	1.07	1.08	1.07	1.10

Thermal Performance

Product	75°F	100°F	200°F	300°F
ProRox SL 760 ^{NA}	0.24	0.26	0.31	0.35

Facings: available on select ROXUL products upon request



A Global Leader

ROXUL Inc. is part of ROCKWOOL International, the largest producer of stone wool insulation, which is made from natural basalt rock and recycled material. ROCKWOOL International was founded in 1909 and today operates worldwide with more than 9,800 employees, with 28 factories across three continents.

ROCKWOOL has over 75 years in the insulation business and for 25 years ROXUL® has been serving the North American market, manufacturing stone wool insulation products for residential, commercial, industrial and OEM applications.

ROXUL is the Better Insulation

ROXUL is an innovative insulation offering a world of green features. When ROXUL is the specified insulation, companies will receive a superior product along with the technical expertise of the ROXUL team to meet all insulation requirements.







Environmentally Sustainable

Our stone wool production process utilizes some of the most advanced technology available. The last decade has seen a new generation of ROXUL manufacturing facilities that are designed to lower our environmental footprint. These endeavors have included the capture and recycle rainwater, reduction in energy consumption, and zero waste to landfill by the recycling of raw materials back into the production process. ROXUL facilities also use natural lighting and re-purpose water used during the manufacturing process to minimize the impact on the environment and surrounding community resources.

ROXUL insulation is created using naturally occurring, inorganic raw materials and reuses waste from other manufacturers as well as from our plants. Stone wool insulation is noncombustible and achieves its thermal performance without the use of blowing agents. The products therefore do not off-gas over time, contributing to a sustainable environment.

Each ROXUL plant uses a varying combination of new and recycled content in order to remain efficient and environmentally friendly. ROXUL is committed to improving our overall efficiencies which further solidifies our commitment to environmental stewardship within the organization.

For further details contact your ROXUL sales representative. Please visit **www.roxul.com** for the latest information.

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