

NEW
PRODUCT
NAMES

ProRox[®] Pipe Products Catalogue

Pipe Insulation for High Temperature
Industrial Applications

ROXUL[®]
The Better Insulation[™]



New product names, logical structure

Each product name is structured in the same clear way:



■ Product identifier ← --

SL = Boards/Slabs
 FSL = Flexible Boards/Slabs
 PS = Pipe Insulation
 MA = Wrap/Mat

-- → ■ Application code

400 Series = Industrial Fabrication Insulation
 500 Series = Compression
 700 Series = Comfort/Multi-Purpose
 900 Series = Thermal Insulation

■ Facing options ← --

RFF = Reinforced Foil Facer
 BM = Black Mat
 WHM = White Mat
 WH = White Polypropylene

ProRox® Industrial Insulation

Performance Driven Solutions

From now on, all our insulation solutions for industrial installations will be part of the ProRox product range. The new naming strategy will make it easier for engineers and specifiers to identify the right product for each specific application by ignoring density and focusing on performance driven solutions. It also aligns ROXUL® with ROCKWOOL operating companies to create a globally harmonized product offering.

NEW NAME

OLD NAME

ProRox® PS 960 ^{NA}	TECTHON® 1200
ProRox® PS 980 ^{NA}	STURDIROCK®
ENERWRAP® MA 960 ^{NA}	ENERWRAP® 80
ProRox® SL 920 ^{NA}	RHT® 30
ProRox® SL 930 ^{NA}	RHT® 40
ProRox® SL 940 ^{NA}	RHT® 60
ProRox® SL 960 ^{NA}	RHT® 80
ProRox® SL 540 ^{NA}	RHT® 100
ProRox® SL 560 ^{NA}	RHT® 120
ProRox® SL 590 ^{NA}	RHT® 150
ProRox® FSL 920 ^{NA}	RHT® 30 Flex
ProRox® FSL 930 ^{NA}	RHT® 40 Flex
ProRox® FSL 940 ^{NA}	RHT® 60 Flex
ProRox® FSL 960 ^{NA}	RHT® 80 Flex
ProRox® MA 930 ^{NA}	RHT® 40 Wrap
ProRox® MA 940 ^{NA}	RHT® 60 Wrap
ProRox SL 430 ^{NA}	New Product
ProRox SL 450 ^{NA}	New Product
ProRox SL 460 ^{NA}	New Product
ProRox SL 760 ^{NA}	New Product



Better For The Workplace And The Environment: ROXUL® Industrial Pipe Insulation

ROXUL offers three high-performance industrial pipe insulation products for demanding, high-temperature pipe applications. The ProRox® series are stone wool (mineral wool) based insulation products made from natural stone and recycled content. These are green products designed to stand up to the harsh conditions of North America's oil and gas, power generation, and petrochemical industries.

From extreme heat and moisture intense environments, ROXUL's pipe insulations effectively reduce noise while providing excellent thermal performance, fire resistance and water repellence for the protection of personnel and equipment.

Fire Resistant

The stone wool and recycled content combination in ROXUL's pipe insulations makes these products non-combustible and fire resistant. These products are designed for operating temperatures up to 1400 °F (760 °C), withstanding the heat of up to 2150 °F (1177 °C) without melting. ROXUL pipe insulations are excellent barriers to flame spread and critical lines of defence in fire control for personnel and equipment in plants and pipelines.

Noise Control

ROXUL pipe insulations' stone wool compositions have unique non-directional structures and densities to effectively reduce airflow and essentially, sound transmissions. These denser structures, coupled with tight joints, create effective barriers to pipe noise and contribute to much quieter and safer work environments.

Water Repellent

The ROXUL pipe product line does not absorb water or hold moisture. The dense stone wool based material naturally repels and drains water away from pipes without compromising R-value. These products do not promote fungi, mildew, or bacteria growth and are chemically inert to eliminate corrosion.

Easy Installation

All ROXUL industrial pipe insulation is easy to handle on job sites. The products' higher densities make them 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.

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.

With the push for sustainable development, ROXUL leads the way with eco-friendly products that contain natural, inorganic materials made with recycled content.

ProRox® PS 980^{NA}

NEW
NAME

Formerly: ROXUL STURDIROCK®

Type V Pipe Insulation That Beats The Heat and Protects with Exceptional Compressive Strength

ProRox PS 980^{NA} is a lightweight, mandrel-wound preformed Type V pipe insulation designed specifically for high-temperature steam and process pipe systems. ProRox PS 980^{NA} is engineered to deliver exceptional compressive strength without susceptibility of breakage and the dust associated with calcium silicate for a cleaner, safer working environment.

Made of stone wool, this proven, cost-effective product is ideal for steam and process pipe systems operating at temperatures up to 1400 °F (760 °C), where energy conservation, personnel protection and fire control are concerns.

Compliance

Product	ASTM C547 (Standard for Preformed Pipe)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C795 (Corrosion Resistance)
ProRox® PS 980 ^{NA}	Type I, II, IV, & V	Pass	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox® PS 980 ^{NA}	0.25	0.28	0.34	0.40	0.46	0.56	0.60

Benefits

- ASTM C547 Type V pipe insulation (Standard Specification for Mineral Fibre Pipe Insulation)
- Operating temperature up to 1400 °F (760 °C)
- Excellent compressive strength properties ideal for areas subject to heavy mechanical loads
- Easier cutting at point of installation; no band saw required
- Virtually no dust to keep work environments cleaner
- Fire resistant; non-combustible, with melting point of approx. 2150 °F (1177 °C)
- Top thermal performance; use less product
- Smaller diameters compared to calcium silicate, reducing jacketing costs
- Range of thicknesses and sizes, from 1/2" to 34" NPS



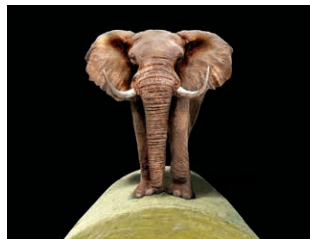
Fire Resistant

ProRox PS 980^{NA} is non-combustible, resisting fire and delaying fire spread for added margins of worker and plant safety.



Water Repellent

The stone wool structure repels water and aids in draining to protect pipes and does not promote fungi or mildew growth.



Superior Compressive Strength

The dense wool structure provides strength to withstand high traffic in plants.



Fast, Easy Installation

ProRox PS 980^{NA} requires nothing more than a serrated knife for precise cuts that can be made easily at the point of installation, reducing waste and manpower hours.

ProRox® PS 960^{NA}



Formerly: ROXUL TECHTON 1200®

Pipe Insulation that Reduces Noise and Protects the Workplace

ProRox PS 960^{NA} is a lightweight, mandrel-wound preformed pipe insulation designed specifically for high temperature steam and process pipe systems. It is engineered to deliver outstanding noise control to quiet the workplace.

This proven, cost-effective product is designed for moisture intense applications such as steam and process pipe systems operating at temperatures up to 1200 °F (650 °C), where energy conservation, personnel protection and fire control are concerns.

ROXUL® manufactures ProRox PS 960^{NA} to standard lengths in both imperial and metric dimensions.

Benefits

- Operating temperature up to 1200 °F (650 °C)
- Fire resistant; non-combustible, with melting point of approx. 2150 °F (1177 °C)
- Water and moisture resistant; impregnated with high-water repellent characteristics
- Non-corrosive
- Lasting thermal performance not compromised by water
- Controls sound transmission as a result of:
 - Non-directional fiber composition and density
 - Tight, seamless joints
- Easy to handle and cut with a knife for easy installation
- Range of sizes, from ½” to 36” NPS

Compliance

Product	ASTM C547 (Standard for Preformed Pipe)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C795 (Corrosion Resistance)
ProRox® PS 960 ^{NA}	Type I, II, IV	Pass	Pass

Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ProRox® PS 960 ^{NA}	0.25	0.28	0.34	0.39	0.45	0.53	0.63



Fire Resistant

Non-combustible and fire resistant, ProRox PS 960^{NA} is ideal for industrial applications where personnel protection and fire control are concerns.



Water Repellent

The stone wool structure repels water and aids in draining to protect pipes and does not promote fungi or mildew growth.



Fast, Easy Installation

ProRox PS 960^{NA} requires nothing more than a serrated knife for precise cuts that can be made easily at the point of installation, reducing waste and manpower hours.



High Compressive Strength

Being mandrel-wound provides it with exceptional compressive strength, better heat retention and is easier to fabricate.

ENERWRAP® MA 960^{NA}

NEW
NAME

Formerly: ENERWRAP® 80

Pipe Insulation for Quieting and Protecting Irregular Pipes

Available in either a black scrim or foil face, ENERWRAP® MA 960^{NA} is a flexible, stone wool blanket pipe insulation that is non-combustible and engineered for hard-to-fit, high-temperature surfaces such as large-diameter pipes, vessels, boilers, tanks, furnaces and irregularly shaped mechanical equipment.

Unlike conventional lamella style pipe and tank wrap that can lose its thermal effectiveness through V groove joints, ENERWRAP® MA 960^{NA} is fabricated as a solid blanket with non-directional fiber composition to maintain consistent thermal performance.

ROXUL® offers the product cut to size, reducing waste and manpower hours.

Compliance

Product	ASTM C553 (Standard for Mineral Fiber Blanket)	CAN/ULC S102 and ASTM E84 (Surface Burning)	ASTM C665 and C795 (Corrosion Resistance)
ENERWRAP® MA 960 ^{NA}	Type VII	Pass	Pass

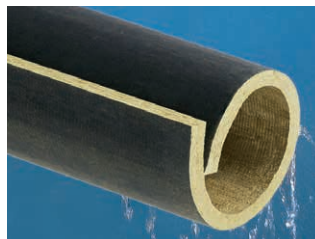
Thermal Performance

Product	100°F	200°F	300°F	400°F	500°F	600°F	700°F
ENERWRAP® MA 960 ^{NA}	0.25	0.30	0.34	0.40	0.48	0.58	0.68



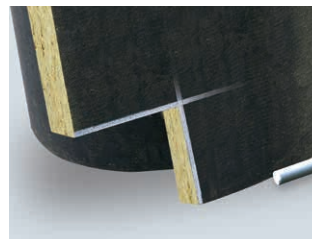
Fire Resistant

Ideal for high heat pipe applications, ENERWRAP MA 960^{NA} is non-combustible and resists fire for increased margins of workplace safety.



Water Repellent

The stone wool structure repels water and aids in draining to protect pipes and does not promote fungi or mildew growth.



Scrim-Faced Flexible Blanket

Black scrim-facing for easy measurements and cuts when installing. Suitable for double layering. Foil-faced option also available.



Advanced Shrink Wrap Packing

Advanced shrink wrap packaging offers more square footage per package and higher load factors for fewer shipments to job sites.

Benefits

- Designed for structural members of all shapes and sizes
- Operating temperature up to 1200 °F (650 °C)
- Available in many lengths and cut to size
- Black scrim-facing for chalk marking and accurate cuts at point of installation
- Suitable for double layering
- Non-directional fiber composition and density controls noise
- Reinforced foil facing option also available
- Water and moisture resistant; does not absorb moisture to maintain insulating value

Compliance and Performance

ProRox® Pipe Series

Fire Performance

CAN/ULC S114	Test For Non-Combustibility	Non-Combustible
ASTM E136	Behavior Of Materials at 1382 °F (750 °C)	Non-Combustible
CAN/ULC S102	Surface Burning Characteristics	Flame Spread = Passed Smoke Developed = Passed
ASTM E84(UL 723)	Surface Burning Characteristics	Flame Spread = Passed Smoke Developed = Passed

Corrosive Resistance

ASTM C665	Corrosiveness to Steel	Pass
ASTM C795	Stainless Steel Stress Corrosion Specification as per Test Methods C871 and C692: U.S. Nuclear Regulatory Commission, Reg. Guide #1.36: U.S. Military Specifications MIL-I-24244 (all versions including B and C)	Conforms

Moisture Resistance

ASTM C1104	Moisture Sorption	< 0.1%
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Forgotten Potential

Despite operating temperatures of 392 °F (200 °C) - 1112 °F (600 °C), hot pipes, boilers and tanks in power plants and process industries are insufficiently insulated.

With the industrial sector consuming approximately 25 percent of all our energy, this represents a massive missed opportunity to achieve energy savings.

ProRox® PS 980^{NA}



Formerly: ROXUL STURDIROCK®

ASTM C547	Standard Specification for Mineral Fiber Preformed Pipe Insulation	Type I, II, IV, V Grade A
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Maximum Surface Temperature

ASTM C411	Hot Surface Performance	In Compliance with ASTM C547 @ 1400 °F (760 °C)
ASTM C447	Maximum Surface Performance	In Compliance with ASTM C547 @ 1400 °F (760 °C)

Dimension Stability

ASTM C356	Linear Shrinkage	< 0.60% @ 1200 °F (650 °C)
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Compressive Strength

ASTM C165	at 10%	1102 psf (52.8kPa)
	at 25%	1906 psf (91.3 kPa)

Density

ASTM C303		11.25 lbs/ft ³ 180 kg/m ³
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Acoustical Performance

ASTM E1222 – Standard Test Method For Laboratory Measurement of the Insertion Loss of Pipe Lagging

Product	Jacket	Frequency (Hz)				
		800	1000	2000	4000	5000
		Insertion Loss (db)				
12 x 1.5	Aluminum	0	5	8	18	24
	Stainless Steel	1	5	14	21	28
	PVC	0	2	9	21	28
12 x 2	Aluminum	0	5	10	19	26
	Stainless Steel	1	10	16	24	31
	PVC	0	1	12	23	30
12 x 2.5	Aluminum	1	7	10	25	30
	Stainless Steel	1	11	14	26	33
	PVC	0	3	8	25	31
12 x 3	Aluminum	0	3	14	23	30
	Stainless Steel	1	6	17	27	33
	PVC	0	3	10	26	29
12 x 4	Aluminum	3	14	13	25	31
	Stainless Steel	5	14	16	28	34
	PVC	0	8	16	26	31

ProRox® PS 960^{NA}



Formerly: ROXUL TECHTON 1200®

Acoustical Performance

ASTM E1222- Standard Test Method For Laboratory Measurement of the Insertion Loss of Pipe Lagging

Product	Jacket	Frequency (Hz)												
		315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
		Insertion Loss (db)												
12 x 1.5	Aluminum	3	-1	1	5	7	15	16	19	20	22	24	25	29
	Stainless Steel	3	0	2	6	8	16	17	21	22	24	26	26	30
	PVC	2	-4	-2	4	5	13	14	19	22	24	27	27	30
12 x 2	Aluminum	4	0	1	5	7	14	16	19	20	22	24	25	29
	Stainless Steel	5	0	2	6	9	16	17	20	23	24	26	26	30
	PVC	4	-1	0	4	6	12	14	18	21	24	26	26	30
12 x 2.5	Aluminum	3	0	1	6	7	14	16	20	21	23	25	26	29
	Stainless Steel	3	0	1	7	9	15	18	21	23	24	26	26	30
	PVC	1	-3	-2	4	2	11	14	19	21	24	26	25	29
12 x 3	Aluminum	3	-1	2	6	5	13	16	19	21	23	25	27	31
	Stainless Steel	3	-1	2	6	6	14	17	20	23	24	26	27	31
	PVC	2	0	1	3	2	11	15	19	23	25	28	28	31
12 x 4	Aluminum	3	1	4	7	10	16	18	22	24	26	28	28	31
	Stainless Steel	3	1	5	8	11	18	19	23	25	26	28	28	31
	PVC	3	1	3	5	5	15	18	22	25	27	29	28	31



ProRox PS 960^{NA} is fire resistant and water repellent that saves energy, while also providing optimal protection for personnel and equipment.



ProRox PS 960^{NA} requires nothing more than a serrated knife for precise cuts that can be made quickly and easily at the point of installation, reducing waste and manpower hours.

ProRox® PS 960^{NA}



Formerly: ROXUL TECHTON 1200®

ASTM C547

Standard Specification for Mineral
Fiber Preformed Pipe Insulation

Type I, II, IV
Grade A

Maximum Surface Temperature

ASTM C411

Hot Surface Performance

In Compliance with
ASTM C547 @ 1200 °F (650 °C)

ASTM C447

Maximum Surface Performance

In Compliance with
ASTM C547 @ 1200 °F (650 °C)

Dimensional Stability

ASTM C356

Linear Shrinkage

≤1.30% @ 1200 °F (650 °C)



Performance Driven Solutions

ProRox PS 960^{NA} is designed for moisture intense applications, such as steam and process pipe systems operating at temperatures up to 1200 °F (650 °C), where energy conservation, personnel protection and fire control are concerns.

ENERWRAP[®] MA 960^{NA}



Formerly: ENERWRAP[®] 80

ASTM C553	Mineral Fiber Blanket Thermal Insulation	Type VII
Maximum Surface Temperature		
ASTM C411	Hot Surface Performance	In Compliance with ASTM C553 @ 1200 °F (650 °C)
Dimension Stability		
ASTM C356	Linear Shrinkage	1.49% @1200 °F (650 °C)
Thermal Resistance		
ASTM C518 (C177)	R-value/inch @ 75 °F RSI value/25.4mm @ 24 °C	4.0hr.ft ² .F/BTU 0.71m ² K/W
Density		
ASTM C553-92- Nominal	8.0 lbs/ft ³ 128 kg/m	
ASTM C553-08 – Actual ≥ 2" thickness		5.68 lbs/ft ³ 91 kg/m ³





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.



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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.