Johns Manville
A Berkshire Hathaway Company

PRODUCT SELECTION GUIDE

Industrial Insulation & Metal Jacketing

Thermo-1200®

Water-Resistant Calcium Silicate Pipe & Block Insulation

Thermo-1200®* is a water-resistant, molded, high-temperature, abuse-resistant pipe and block insulation composed of hydrous calcium silicate. Recommended for use in the industrial processing and power generation industries. Integral to Thermo-1200 is XOX Corrosion Inhibitor®, a distinctive formula and process that actively inhibits corrosion to outside surfaces of pipe and equipment.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Form	Pipe Size in/mm	Thickness in/mm
Pipe Insulation	½ - 24" / 13-600	1 - 3" / 25-76 mm*
Quad Segments	20 - 37" / 500-925	1½ - 3" / 38-76 mm
Hex Pipe Covering	38 - 52" / 950-1300	1½ - 3" / 38-76 mm
Curved Segments	30 - 126" / 762-3200	1½ - 3" / 38-76 mm
Curved Radius Block	30 - 126" / 762-3200	1½ - 3" / 38-76 mm
3-V Scored Block	30 min" / 762 min mm	1½ - 4" / 38-102 mm
Beveled Lags	126 min" / 3200 min mm	1½ - 3" / 38-76 mm
Flat Block	Flat Surface	1 - 3" / 25-76 mm

* 1" or 25 mm Thickness only available up to 6" or 150 mm pipe size

THERMAL PERFORMANCE

	ASTM C335 (PIPE)		ASTM C518 (FLAT)	
Mean Temp.	Btu•in/hr•ft²•°F	W/m°C	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.344	0.050	0.355	0.051
200°F / 93°C	0.389	0.056	0.373	0.054
300°F / 149°C	0.437	0.063	0.397	0.057
400°F / 204°C	0.486	0.070	0.428	0.062
500°F / 260°C	0.538	0.078	0.465	0.067
600°F / 316°C	0.591	0.085	0.509	0.559
700°F / 371°C	0.647	0.093	0.559	0.081

SPECIFICATION COMPLIANCE

ASTM C533 Type I Material Specification: Passes
ASTM C1617 Corrosion: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E136 Non-Combustible: Passes
UL 1709: Call for design details

For more information, refer to product data sheet IND-303

*Thermo-1200® water-resistant calcium silicate is not hydrophobic. Thermo-1200 is designed to be able to withstand short periods of rainfall without absorbing water in excess. The volume of water absorption depends on the duration of exposure and the amount of rainfall. The insulation is not meant to withstand extreme weather conditions without jacketing. While this new water resistant feature can be helpful during prolonged field installations, it is nevertheless recommended that an installer weatherproof and jacket the thermal insulation as soon as it is feasibly possible. Should water enter the system, the corrosion inhibitors will still activate to continue to help combat corrosion at a chemical level, and once the system reaches operating temperatures, the water will vaporize and leave the system.

Sproule WR-1200®

Hydrophobic Expanded Perlite Pipe & Block Insulation

Sproule WR-1200 is a preformed, high-temperature, non-wicking, hydrophobic pipe and block insulation composed of expanded perlite that is uniformly reinforced with a high-strength fiber. Integral to Sproule-1200 is XOX Corrosion Inhibitor®, a distinctive formula and process that actively inhibits corrosion to outside surfaces of pipe and equipment.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Form	Pipe Size in/mm	Thickness in/mm
Pipe Insulation	½ - 24" / 13-600	1 - 3" / 25-76 mm
Quad Segments	24 - 40" / 600 - 1000 mm	1½ - 3" / 38-76 mm
Curved Segments	30 - 126" / 762 - 3200 mm	1½ - 3" / 38-76 mm
Curved Radius Block	30 - 126" / 762 - 3200 mm	1½ - 3" / 38-76 mm
Scored or V-Grooved Block	30 min" / 762 min mm	1½ - 4" / 38-102 mm
Flat Block	Flat Surface	1 - 4" / 25-102 mm

* 1" or 25 mm Thickness only available up to 6" or 150 mm pipe size

THERMAL PERFORMANCE

	ASTM C335 (PIPE)		ASTM C518 (FLAT)	
Mean Temp.	Btu•in/hr•ft²•°F	W/m°C	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.412	0.059	0.438	0.063
200°F / 93°C	0.481	0.069	0.476	0.069
300°F / 149°C	0.548	0.079	0.515	0.074
400°F / 204°C	0.611	0.088	0.557	0.080
500°F / 260°C	0.671	0.097	0.601	0.087
600°F / 316°C	0.728	0.105	0.646	0.093
700°F / 371°C	0.782	0.113	0.694	0.100

SPECIFICATION COMPLIANCE

ASTM C610 Material Specification: Passes
ASTM C1617 Corrosion: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E136 Non-Combustible: Passes

For more information, refer to product data sheet IND-200

MinWool-1200® Pipe

Water-repellent Mineral Wool Insulation

MinWool-1200® Pipe is a water-repellent pipe insulation made of inorganic fibers derived from basalt, a volcanic rock. It is made with a thermosetting resin binder. Advanced manufacturing technology ensures consistent product quality, with high fiber density and low shot content, for excellent performance in high-temperature, thermal control and fire-resistant applications.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Form	Pipe Size in/mm	Thickness in/mm
One Piece	½ -6 / 13-152	1-6 / 25-152
Two Piece	7-24 / 175-600	1-6 / 25-152
Four Piece	25-44 / 625-1100	1-6 / 25-152 (½" increments)

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.23	0.033
200°F / 93°C	0.28	0.040
400°F / 204°C	0.40	0.058
600°F / 316°C	0.56	0.081

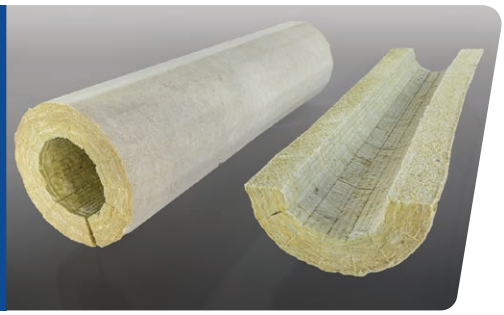
SPECIFICATION COMPLIANCE

ASTM C547 Material Specification Types I, II, IV: Passes
ASTM C665 Corrosivity to Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤0, Smoke Developed ≤0
BS EN 13472 Short-Term Water Absorption

For more information, refer to product data sheet IND-401

MinWool-1200® Preformed Pipe

Water-repellent Mineral Wool Insulation



MinWool-1200® Preformed (PF) pipe insulation is a water-repellent, factory v-grooved mineral wool board that is formed to specific pipe sizes. It is provided in half-cylinder sections with a variety of facing options. PF Pipe insulation is a factory "V-grooved" mineral wool board that is formed to specific pipe sizes and provided in half cylinder sections with a variety of facing options.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Standard Thickness
Single Layer: 1-4" thick
Double Layer: Over 4" thick in ½" increments
Pipe Size: ½-36"
Available in iron pipe sizes
Pipe sizes ½ - 2½" are supplied with no facer
Pipe sizes 3" and larger are supplied with a fiberglass mat facing

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.25	0.036
200°F / 93°C	0.30	0.044
400°F / 204°C	0.44	0.064
600°F / 316°C	0.62	0.090

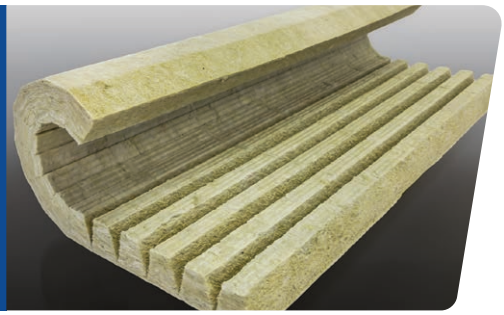
SPECIFICATION COMPLIANCE

ASTM C547 Material Specification Types III: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤25, Smoke Developed ≤50
BS EN 1609 Short-term Water Absorption

For more information, refer to product data sheet IND-423

MinWool-1200® Field-Formed Pipe

Water-repellent Mineral Wool Insulation



MinWool-1200® Field-Formed Pipe insulation is a water-repellent, factory v-grooved mineral wool board with a unique contact adhesive in the grooves. It is manufactured to specific pipe sizes with a variety of facing options. MinWool-1200 Field-Formed Pipe ships flat and allows for easy forming at the job site.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Standard Thickness
Single Layer: 1½-4" thick
Double Layer: Over 4" thick in ½" increments
Pipe Size: 2½-72"
Available in iron pipe sizes
Pipe sizes ½ - 2½" are supplied with no facer
Pipe sizes 3" and larger are supplied with a fiberglass mat facing

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.25	0.036
200°F / 93°C	0.30	0.044
400°F / 204°C	0.44	0.064
600°F / 316°C	0.62	0.090

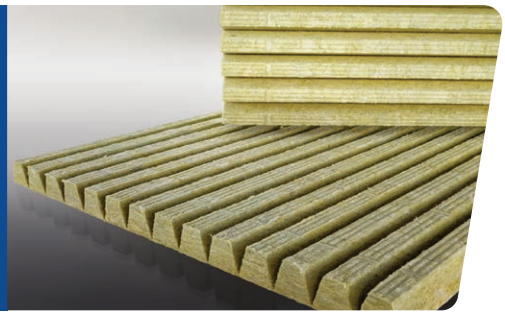
SPECIFICATION COMPLIANCE

ASTM C547 Material Specification Types III: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤25, Smoke Developed ≤50
BS EN 1609 Short-term Water Absorption

For more information, refer to product data sheet IND-420

MinWool-1200® Precision Cut

Water-repellent Mineral Wool Insulation



MinWool-1200® Precision Cut (PC) pipe insulation is a water-repellent, factory v-grooved mineral wool board, manufactured to specific pipe or vessel sizes. It is offered with a variety of facings and is shipped flat in 4 mil plastic, allowing for easy forming on the job site.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Standard Thickness
Single Layer: 1-4" thick
Double Layer: Over 4" thick in ½" increments
Pipe Size: ½ -72"
Available in iron pipe sizes

Facings Available
Pipe sizes ½ -2½" are supplied with no facing
Pipe sizes 3" and above are supplied with a fiberglass mat facing
Other facings available include: ASJ and FSK

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.25	0.036
200°F / 93°C	0.30	0.044
400°F / 204°C	0.44	0.064
600°F / 316°C	0.62	0.090

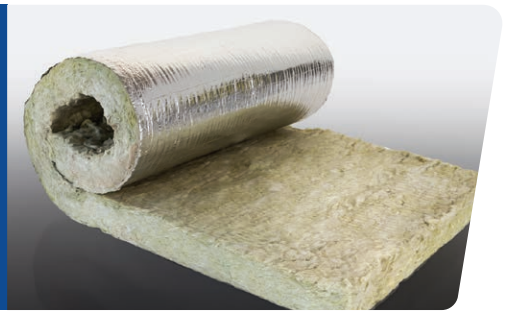
SPECIFICATION COMPLIANCE

ASTM C547 Material Specification Types III: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤25, Smoke Developed ≤50
BS EN 1609 Short-term Water Absorption

For more information, refer to product data sheet IND-422

MinWool-1200® Pipe & Tank Wrap

Water-repellent Mineral Wool Insulation



MinWool-1200® PIpe & Tank Wrap is a water-repellent mineral wool blanket insulation. Advanced manufacturing technology ensures consistent product quality, with high fiber density and low shot content, for excellent performance in high-temperature, thermal control, and fire-resistance applications.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Roll Length ft/m	Width in/m	Thickness in/mm
18 / 5.5	48 / 1.22	1½ / 38
16 / 4.9	48 / 1.22	2 / 50
14 / 4.3	48 / 1.22	2½ / 64
12 / 3.7	48 / 1.22	3 / 76
10 / 3.1	48 / 1.22	3½ / 89
8 / 2.4	48 / 1.22	4 / 102

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.23	0.033
200°F / 93°C	0.28	0.040
400°F / 204°C	0.40	0.058
600°F / 316°C	0.56	0.081

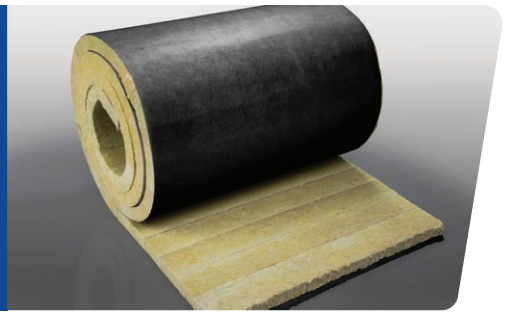
SPECIFICATION COMPLIANCE

ASTM C553 Mineral Fiber Blanket Specification Types I, II,III,IV, V, VI: Passes
ASTM C665 Corrosivity to Steel: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤25, Smoke Developed ≤50
ASTM E136 Non-Combustible: Passes (mineral wool only)
BS EN 1609 Short-Term Water Absorption

For more information, refer to product data sheet IND-415

MinWool-1200® Lamella Tank Wrap

Water-repellent Mineral Wool Insulation



MinWool-1200® Lamella Tank Wrap is a water-repellent, lightweight, strong, flexible mineral wool wrap insulation with perpendicular oriented fibers. This insulation is produced to fit large diameter pipes, ducts, tanks and equipment, operating at temperatures from below ambient up to 1000°F continuous maximum service temperature.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Standard Thickness
Single Layer: 1-4" thick

Facings Available
Standard is fiberglass mat
Available with ASJ and FSK facings

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.29	0.042
200°F / 93°C	0.36	0.052
400°F / 204°C	0.54	0.078
600°F / 316°C	0.82	0.118

SPECIFICATION COMPLIANCE

ASTM C1393 Material Specification / Complies
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤25, Smoke Developed ≤50
ASTM E136 Non-Combustible: Passes (mineral wool only)
BS EN 1609 Short-Term Water Absorption

For more information, refer to product data sheet IND-424

MinWool-1200® Industrial Board

Water-repellent Mineral Wool Insulation

MinWool-1200® Industrial Board is a water-repellent, mineral wool board insulation. Advanced manufacturing technology ensures consistent product quality, with high fiber density and low shot content, for excellent performance in high-temperature, thermal control, and fire-resistant applications.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Nominal Densities (lb/ft³/kg/m³)	Sizes in/mm	Thicknesses in/mm
1240 (4 / 64)	24 x 48 / 610 x 1219	1†-4 / 25†-102
1260 (6 / 96)	36 x 48 / 914 x 1219	*(All Densities)*
1280 (8 / 128)	*(All Densities)*	*Foil Scrim Polyethylene (FSP) facing may be available on a made-to-order basis*
1210 (10 / 160)		
1212 (12 / 192)		

THERMAL PERFORMANCE*

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.25	0.036
200°F / 93°C	0.30	0.043
400°F / 204°C	0.42	0.061
600°F / 316°C	0.56	0.081

SPECIFICATION COMPLIANCE

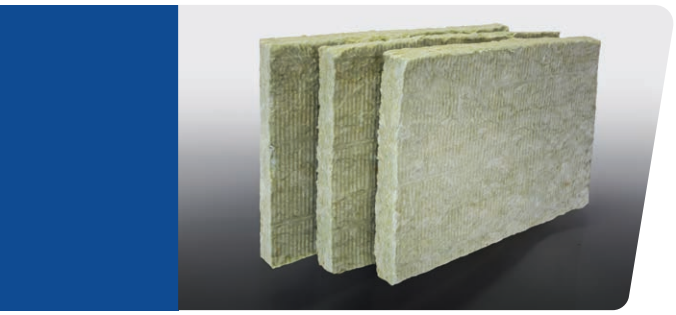
ASTM C612 Material Specification – Complies
ASTM C665 Corrosivity to Steel: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E136 Non-Combustible: Passes
ASTM E84 Surface Burning Characteristics: Unfaced: Flame Spread ≤0, Smoke Developed ≤0
Faced: Flame Spread ≤25, Smoke Developed ≤5
BS EN 1609 Short-term Water Absorption

* *Thermal Performance listed for 1280 density only* - for other densities and more information, refer to product data sheet IND-402

† *1" thickness available in 8#, 10# and 12# densities only*

MinWool-1200® Flexible Batt

Water-repellent Mineral Wool Insulation



MinWool-1200® Flexible Batt is a flexible, water-repellent, mineral wool, batt insulation. Advanced manufacturing technology ensures consistent product quality, with high fiber density and low shot content, for excellent performance in high-temperature, thermal control, and fire-resistant applications.

Operating Temperature Limit: 1200°F (650°C)

AVAILABLE SHAPES AND SIZES

Nominal Densities (lb/ft³/kg/m³)	Sizes in/mm	Thicknesses in/mm
1240 (4 / 48)	24 x 48 / 610 x 1219	1†-4 / 25†-102
1260 (6 / 96)	36 x 48 / 914 x 1219	*(All Densities)*
1280 (8 / 128)	*(All Densities)*	
1210 (10 / 160)		
1212 (12 / 192)		

THERMAL PERFORMANCE*

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
100°F / 38°C	0.25	0.036
200°F / 93°C	0.30	0.043
400°F / 204°C	0.42	0.061
600°F / 316°C	0.56	0.081

SPECIFICATION COMPLIANCE

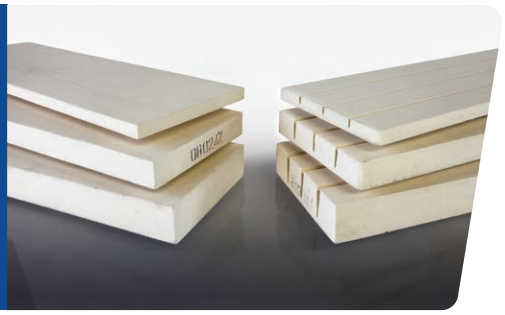
ASTM C612 Material Specification – Complies
ASTM C665 Corrosivity to Steel: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E136 Non-Combustible: Passes
ASTM E84 Surface Burning Characteristics: Flame Spread ≤0, Smoke Developed ≤0
BS EN 1609 Short-term Water Absorption

* *Thermal Performance listed for 1280 density only* - for other densities and more information, refer to product data sheet IND-406

† *1" thickness available in 8#, 10# and 12# densities only*

Super Caltemp® Gold 1700

Calcium Silicate Block Insulation Rated to 1700°F



Super Caltemp® Gold 1700 block is an inorganic, non-combustible, high-temperature insulation that is composed primarily of hydrous calcium silicate. The insulation is tailored for systems operating up to 1700°F (927°C). Super Caltemp Gold 1700 meets or exceeds the physical and thermal property requirements of ASTM C533, Type II.

Operating Temperature Limit: 1700°F (927°C)

AVAILABLE SHAPES AND SIZES

Form	Pipe Size in/mm	Thickness in/mm
3-V Scored Block	30 min / 762 min	1 ½-3 / 38-76
Flat Block	Flat Surface	1-3 / 25-76

THERMAL PERFORMANCE

Mean Temperature	Btu•in/hr•ft²•°F	W/m°C
200°F / 93°C	0.54	0.078
400°F / 204°C	0.61	0.088
600°F / 316°C	0.67	0.097
800°F / 427°C	0.73	0.105

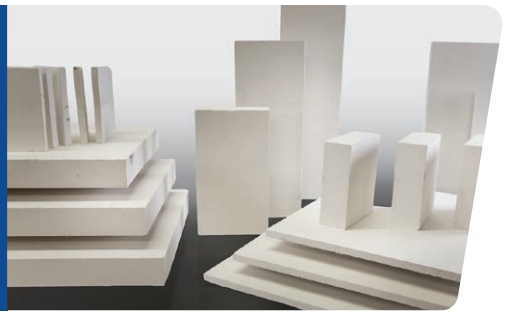
SPECIFICATION COMPLIANCE

ASTM C533 Type II Material Specification: Passes
ASTM C795 / C871 / C692 Corrosion Austenitic Stainless Steel: Passes
ASTM E136 Non-Combustible: Passes
UL 1709: 120 minutes, call for design details

For more information, refer to product data sheet IND-305

Super Firetemp®

High-Temperature Insulation Rated Above 1200°F



Super Firetemp® boards are inorganic, high-temperature boards with exceptional strength and insulating qualities, produced in various densities. Super Firetemp boards are suitable for fire protection applications, refractory backup, and can be machined into component parts of many shapes and sizes.

Continuous Temperature Limit: Varies by product type

AVAILABLE TYPES AND SIZES

Types	Board Dimensions	Thickness in/mm
Super Firetemp L	4ft x 8ft	¾ - 3 / 19 - 76
Super Firetemp M	4ft x 8ft	½ - 3 / 13 - 76
Super Firetemp H	4ft x 8ft	½ -2 / 13 - 51
Super Firetemp X	4ft x 8ft	½ - 2 / 13 - 51
Super Firetemp S	4ft x 8ft	½ - 1½ / 13 - 38 (½" increments)

AVAILABLE DENSITIES

Type	Density (Avg.)
Super Firetemp L	20 pcf (320 kg / m³)
Super Firetemp M	28 pcf (449 kg / m³)
Super Firetemp H	35 pcf (561 kg / m³)
Super Firetemp X	40 pcf (641 kg / m³)
Super Firetemp S	55 pcf (881 kg / m³)

SPECIFICATION COMPLIANCE

ASTM C795 Corrosion Austenitic Stainless Steel: Passes
ASTM C656 Standard Specification for Structural Insulating Board – See individual data sheets for details.
UL 1709 (L and M): Call for design details

For more information, refer to product data sheets:
IND-103(L), IND-104(M), IND-105(H), IND-106(X), IND-107(S)

Trymer® PIR

Polyisocyanurate (PIR) Bunstock

Trymer® is a closed-cell, PIR foam insulation for industrial and commercial pipes, vessels, and equipment. Trymer PIR can be used in applications that operate at temperatures ranging from -297°F* to 300°F (-183°C to 149°C). Additionally, Trymer PIR is offered in several different densities and compressive strengths to suit the unique requirements of a variety of applications. Trymer PIR features one of the lowest k-factors among all pipe insulations: 0.19 Btu•in/hr•ft²•°F at 75°F mean temperature (0.027 W/m•°C at 24°C).

*Trymer PIR can be used at temperatures below -297°F but certain system design precautions may be necessary. Please consult JM for more information.

AVAILABLE DENSITIES AND SIZES

	Density (Avg.)	Sizes (in/cm)		
Name	**ASTM 1622**	**Height:**	**Width:**	**Length:**
Trymer 1800	1.8 lb PCF	24" (61 cm)	48" (122 cm)	36" (91cm) or 96" (244 cm)
Trymer 2000XP	2.0 lb PCF	24" (61 cm)	48" (122 cm)	36" (91cm), 96" (244 cm) or 108" (274 cm)
Trymer 2500	2.5 lb PCF	24" (61 cm)	48" (122 cm)	36" (91cm)
Trymer 3000	3.0 lb PCF	18" (46 cm)	48" (122 cm)	36" (91cm)
Trymer 4000	4.0 lb PCF	16" (41 cm)	48" (122 cm)	36" (91cm) or 96" (244 cm)
Trymer 6000	6.0 lb PCF	12" (31 cm)	48" (122 cm)	36" (91cm) or 96" (244 cm)

THERMAL CONDUCTIVITY/K-FACTOR

ASTM C518, @75°F (24°C) mean temp	**Btu•in/hr•ft²•°F**	**W/m•°C**
Trymer 1800	0.19	0.027
Trymer 2000XP	0.19	0.027
Trymer 2500	0.19	0.027
Trymer 3000	0.19	0.027
Trymer 4000	0.19	0.027
Trymer 6000	0.20	0.029

SPECIFICATION COMPLIANCE

ASTM C591, Grade 2, Type I - VI Material Specification - Complies
ASTM C272 Water Absorption - < 0.7% by vol. after 24-hour immersion
ASTM E84 Surface Burning Characteristics - ≤ 25 Flame Spread ≤ 450 Smoke Developed

For more information, refer to product data sheet.

Trymer® 25-50 (PIR)

Polyisocyanurate (PIR) Bunstock

AVAILABLE DENSITIES AND SIZES

	Density (Avg.)	Sizes (in/cm)		
Name	**ASTM 1622**	**Height:**	**Width:**	**Length:**
Trymer 25-50	2.0 lb PCF	24" (61 cm)	48" (122 cm)	36" (91cm)

THERMAL CONDUCTIVITY/K-FACTOR

ASTM C518, @75°F (24°C) mean temp	**Btu•in/hr•ft²•°F**	**W/m•°C**
Trymer 25-50	0.19	0.027

SPECIFICATION COMPLIANCE

ASTM C272 Water Absorption - 0.93 m^2•°C /W
ASTM E84 Surface Burning Characteristics - ≤ 25 Flame Spread ≤ 50 Smoke Developed
(up to 1.5" thickness)

For more information, refer to product data sheet.

*At thicknesses up to 1.5"
**Trymer PIR can be used at temperatures below -297°F but certain system design precautions may be necessary. Please consult JM for more information.

Aluminum Jacketing

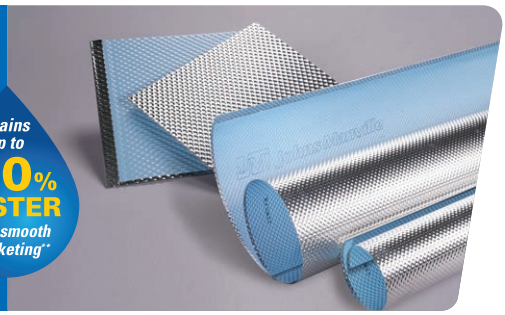
Aluminum Sheets and Roll Jacketing

JM's Aluminum Jacketing is the premier protective outer surface for mechanical insulation systems, including pipes, vessels, and equipment. It is offered in sheets and rolls and provides protection to the insulation and underlying pipe/vessel from physical damage, UV exposure, corrosive environments, and water. Aluminum jacketing is available in smooth, stucco embossed, and corrugated (cross-crimped) finishes. Aluminum Jacketing has a bare outer surface and comes standard with a 3-mil thick, 3-layer polyfilm moisture barrier (PFMB) heat-laminated to the interior surface to help prevent corrosion to the interior side of the jacketing. All Aluminum Jacketing from JM complies with the requirements of ASTM C1729 (Aluminum Jacketing Material Standard) which includes the strength and chemical composition requirements for compliance to ASTM B209 (Aluminum Alloy Standard).

Standard thickness (in): 0.016, 0.020, 0.024, 0.032 and 0.040
Standard sheet lengths: 8', 10', 12', and cut & rolled to specific lengths
Standard roll lengths: 50' and 100'
Standard widths of sheets and rolls: 3' or 4'

For more information, refer to the product data sheet.

Cross-Flo® Jacketing*



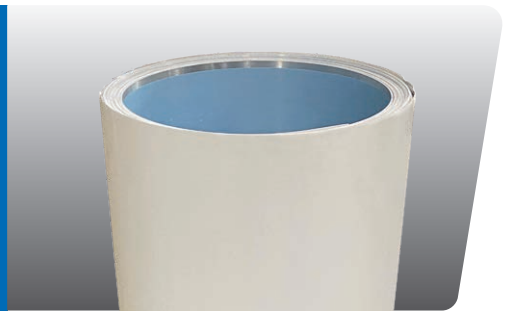
Cross-Flo® Jacketing is a high-performance metal jacketing solution designed to mitigate the potential for corrosion under insulation (CUI) in industrial applications from ambient to high temperatures. It has an embossed pattern engineered to promote cross-directional flow (CDF), thereby providing a path for liquid that may enter the insulation system to more rapidly reach the low point and exit the jacketing through a weep hole or drainage port. Although insulation systems are designed to deter water ingress, there are many ways by which water may enter a system undetected, which may lead to CUI. Cross-Flo Jacketing reduces the risk of CUI by minimizing the time for water to be in contact with the insulation system. In addition, it comes standard with a 3-mil thick polyfilm moisture barrier heat laminated to the interior surface to provide additional protection against corrosion.

Standard thickness (in): 0.016, 0.020, and 0.024
Standard roll length: 50' and 100'
Standard sheet lengths: 8', 10', 12', and cut & rolled to specific lengths
Standard widths of sheets and rolls: 3' or 4'

For more information, refer to the product data sheet.

Painted Aluminum Jacketing

Painted Aluminum Sheets and Roll Jacketing



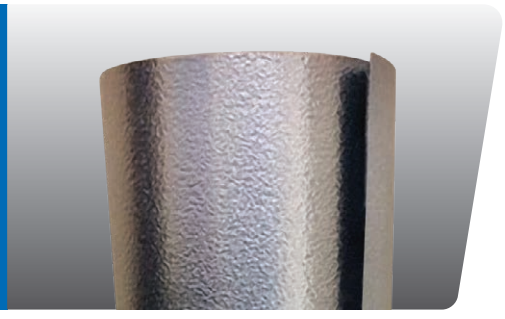
Painted Aluminum Jacketing has a factory-applied, baked-on finish of highly durable hard film acrylic or polyester paint on the exterior surface .The outer finish provides improved aesthetics, color-coding, increased emittance, and improved corrosion protection for the aluminum jacketing. Painted Aluminum Jacketing is available in sheets and rolls and can be used on pipes, tanks, and equipment insulation systems. The special paints used on this jacketing are chalk and fade resistant. They exhibit better resistance to oxidation and to the effects of corrosive environments than bare aluminum jacketing. Standard exterior colors for Painted Aluminum Jacketing are white, gray, and clear coated. It also comes standard with a 3-mil thick 3-layer polyfilm moisture barrier (PFMB) heat-laminated to the interior surface to help prevent corrosion to the interior side of the jacketing.

Standard thickness (in): 0.016, 0.020, 0.024, 0.032 and 0.040
Standard sheet lengths: 8', 10', 12', and cut & rolled to specific lengths
Standard roll lengths: 50' and 100'
Standard width of sheets and rolls: 3'

For more information, refer to the product data sheet.

Stainless Steel Jacketing

Stainless Steel Sheets and Roll Jacketing



JM's Stainless Steel Jacketing is offered in sheets and rolls and is manufactured from T-304 or T-316 prime grade stainless steels. These alloys are supplied with a dull finish for reduced glare. The yield strength is 30,000-45,000 PSI, and the tensile strength is 75,000-110,000 PSI. These alloys are of a special annealed temper for ease in fabrication. T-304 is normally used in all except the most corrosive areas, where T-316 is recommended. The melt point of our 300 Series Stainless Steel is 2500°F, making it an excellent solution for fire protection.

JM's Stainless Steel Jacketing is offered in sheets and rolls and is manufactured from T-304 or T-316 prime grade stainless steels, and comes standard with a 3-mil thick 3 -layer polyfilm moisture barrier (PFMB) heat-laminated to the interior surface.

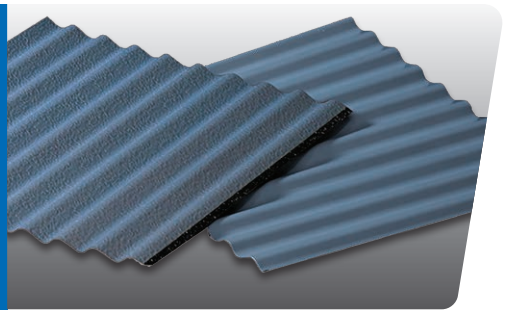
Standard thickness (in): 0.010, 0.016, 0.020, 0.024, and 0.032
Standard roll length: 50'
Standard sheet lengths: 8', 10', 12', and cut & rolled to specific lengths
Standard width of sheets and rolls: 3'

For more information, refer to the product data sheet.

* Patent pending
** Cross-Flo reduced the time to drain 100mL of water by up to 80% in small simulation testing over a 3" insulated pipe.

Deep Corrugated Sheets

Stainless Steel & Aluminum Corrugated Jacketing



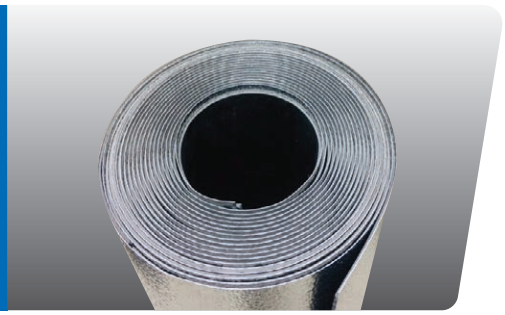
Deep Corrugated Sheets are available in aluminum, painted aluminum, and stainless steel. They provide protection for insulated equipment, towers, vessels, and tanks with outside diameters of 8 feet or more. They are available in a smooth finish, painted, or stucco embossed pattern, and comes standard with a 3-mil thick 3 -layer polyfilm moisture barrier (PFMB) heat-laminated to the interior surface. They are specifically designed for weather-proofing insulation on vertical tanks and vessels, as well as providing mechanical abuse protection for the insulation.

Aluminum Standard thickness (in): 0.016, 0.020, 0.024, 0.032 and 0.040
Stainless Steel Standard thickness (in): 0.010, 0.016, 0.020, 0.024, and 0.032
Standard lengths: Up to 12'
Standard width: ~33"
Nominal corrugations: 1¼" (30mm) have a depth of 1/4"
2½" (64mm) have a depth of 5/8"

For more information, refer to the product data sheet.
*1/2" depth in eastern Canada

Muffl-Jac

Lead-Free Sound-Barrier Metal Jacketing



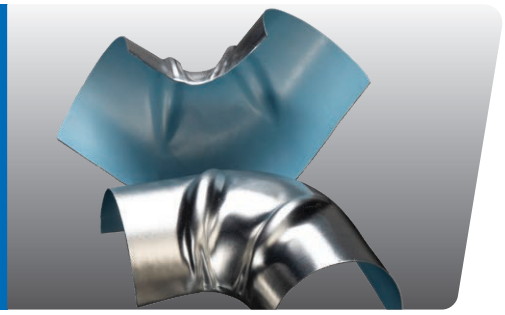
JM's 1 lb Muffl-Jac® sound barrier jacketing is a special high density, composite film laminated to 0.020" aluminum using a viscoelastic film adhesive. It simultaneously absorbs, dampens, blocks and isolates sound, and reduces noise levels radiated by piping and equipment.

Standard thickness (in): 0.020 Aluminum (other thicknesses of aluminum and stainless steel are available)
Standard sheet size: 36" W by 36' L (108 sq. ft)
Weight (film): 1 lb/sq. ft
Available Finishes: Smooth or Stucco Embossed
Service Temperature: -40°F to 180°F (-40°C to 82.2°C)
Sound Transmission Class (STC): 29 (ASTM E413)

For more information, refer to the product data sheet.

Ell-Jacs™ Plus

Polyfilm Lined Aluminum Elbow Covers



Ell-Jacs™ Plus Polyfilm Lined Aluminum Elbow Covers are made in two, precision-formed, matching halves to cover and weatherproof insulated 45° and 90° pipe elbows. Like our Aluminum Jacketing, Ell-Jacs Plus are a premier protective jacketing for insulation pipe systems and are a crucial accessory to complement the aluminum jacketing. Ell-Jacs Plus help protect the insulation and underlying pipe from physical damage, UV exposure, corrosive environments, and water. They also reduce the time and labor needed to install a metal jacketing system.

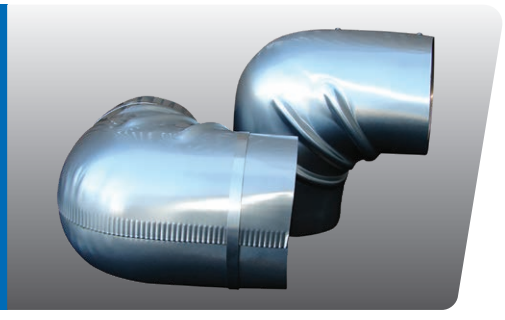
Ell-Jacs Plus from JM comply with the applicable requirements of ASTM C1729 (Aluminum Jacketing Material Standard), Type III, Grade 3, Class A, which includes the strength and chemical composition requirements for compliance to ASTM B209 (Aluminum Alloy Standard).

Standard thickness (in): 0.024

For more information, refer to the product data sheet.

Multi-Fit Aluminum Elbow Covers

Polyfilm Lined Aluminum Elbow Covers



Multi-Fit Aluminum Polyfilm Lined Elbow Covers are designed to fit over 90° insulation elbows with a specific outer diameter, regardless of the pipe size, use of long or short radius pipe elbows, or insulation thickness. Multi-Fit Aluminum Elbow Covers come in 13 sizes that fit 111 combinations of nominal pipe size (NPS) and insulation thickness, up to a nominal outer insulation diameter of 12.75 inches. Like our Aluminum Jacketing, Multi-Fit Aluminum Elbow Covers are a premier protective jacketing for insulation pipe systems and are a crucial accessory to complement JM's Aluminum Jacketing. Multi-Fit Aluminum Elbows from JM comply with the applicable requirements of ASTM C1729 (Aluminum Jacketing Material Standard), Type III, Grade 3, Class D, which includes the strength and chemical composition requirements for compliance to ASTM B209 (Aluminum Alloy Standard). Multi-Fit Aluminum Elbow Covers are designed to yield a 5/8" overlap at the heel and throat joints when used over insulation that complies with the target diameters in ASTM C585 and C450.

Standard thickness (in): 0.024

For more information, refer to the product data sheet.

Stainless Steel Sure-Fit Elbow Covers

Stainless Steel Insulation Elbow Covers

Stainless Steel Sure-Fit Insulation Elbow Covers are made in two, precision-formed matching halves, sized to cover and weatherproof insulated 90° and 45° elbows along pipelines. They are manufactured from Type-316 Stainless Steel in .016-inch thickness. They can be used on long and short radius, butt weld, socket weld, and screwed pipe elbows from ½-inch to 10-inch Iron Pipe Size, inclusive. JM's stainless steel elbows are the closest fitting elbow insulation covers available from any source. They are designed to allow for a minimum $^{7}/_{16}$-inch circumferential overlap and are manufactured to conform to ASTM C450 Method of Fabrication and ASTM C585.

Stainless Steel Sure-Fit Insulation Elbow Covers from JM comply with the applicable requirements of ASTM C1767 (Stainless Steel Jacketing Material Standard), Type I, Grade 2, Class E, which includes the strength and chemical composition requirements for compliance to ASTM A240 (Stainless Steel Alloy Standard).

Standard thickness (in): 0.016

For more information, refer to the product data sheet.

ACCESSORIES

Calbond® Gold

High-Temperature Glue

CalBond® Gold is a modified, silicate-based glue for thermal insulations. It sets quickly to provide a high-temperature bond for porous insulating materials. CalBond Gold is useful for bonding sections of calcium silicate or perlite high-temperature pipe or block insulation and to make mitered elbows, large insulating sections or other special shapes.

For more information, refer to product data sheet.

CalCoat-127®

One Coat Finishing Cement

CalCoat-127® is a proprietary blend of hydraulic cement, calcium silicate and inorganic mineral fibers with corrosion inhibitors that provides a smooth finish over high-temperature insulation. CalCoat-127 is recommended for finishing use with calcium silicate or perlite insulation in high-temperature piping and equipment applications.

For more information, refer to product data sheet.

Super Calstik®

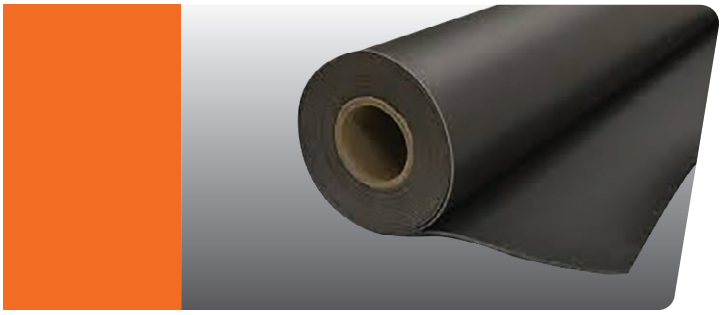
High-Temperature Glue

Super Calstik® is a modified, silicate-based glue. It sets quickly to provide a high-temperature bond for porous insulating materials. Super Calstik is used for bonding and sealing joints in Super Firetemp high-temperature insulation. It is used in walls, structural steel, cable trays and other fire-rated applications.

For more information refer, to product data sheet.

Mass Loaded Vinyl

Non-Reinforced Vinyl Noise Barrier

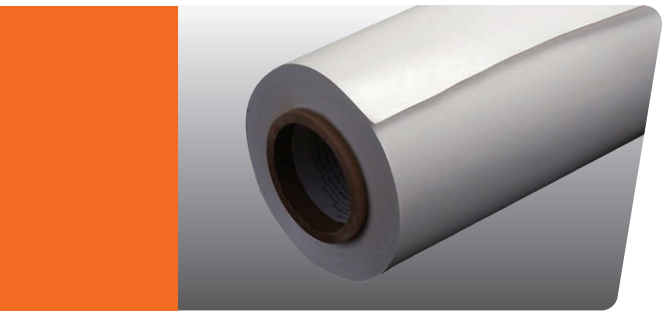


JM's Mass Loaded Vinyl Noise (MLV) Noise Barrier is a flexible, non-reinforced mass loaded vinyl that resists the passage of sound waves and reduces the transmission of airborne noises. MLV Noise Barrier will not shrink, rot or cause metal corrosion. MLV features a strong resistance to adverse environmental conditions, oils, weak acids and alkalis. The vinyl can be combined with acoustical foams, mineral wool, glass fiber and ceramic fiber insulation wool to provide lightweight, efficient composites with high transmission losses over a broad frequency range.

Standard thickness (in): .100"
Standard size: 100 (1lb./sq.ft.) - 35.5" x 36' - Please Inquire about 150 (1.5lb./sq.ft.) & 200 (2lb./sq.ft.)
Weight (film): 1 lb/sq. ft
Service Temperature: -40°F to 180°F (-40°C to 82.2°C)

Saranex® CX Film 540 & 560

Vapor Retarder Film



Saranex® CX Vapor Retarder Film is a durable, flexible polyvinylidene chloride (PVDC) vapor retarder film used in conjunction with jacketing for mechanical insulation systems. This high-performance, cost-effective, vapor retarder system helps prevent water absorption and resists moisture vapor drive into the insulation. Saranex CX Vapor Retarder Film is ideal for low-temperature applications such as food and beverage facilities, hydronic piping and HVAC systems, transport pipelines, chemical condensation tanks, cold-storage systems, refrigerated transport, and chilled water systems.

Saranex CX Vapor Retarder Film is supplied either factory-applied on straight lengths of Trymer or Styrofoam™ insulation or in easy-to-use rolls for field application.

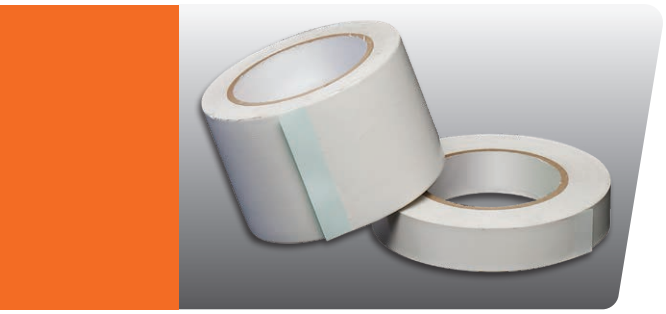
For more information, refer to the product data sheet.

® Saranex is a registered Trademark of Transcendia

Name	ASTM D374 Thickness	Roll Length:	Roll Widths:
Saranex® CX Film 540	4 mils, avg.	375' (114 m)	35.5" (90 cm)
Saranex® CX Film 560	6 mils, avg.	250' (78 m)	35.5" (90 cm)

Saranex® Tape 520 & 560

Vapor Retarder Tape



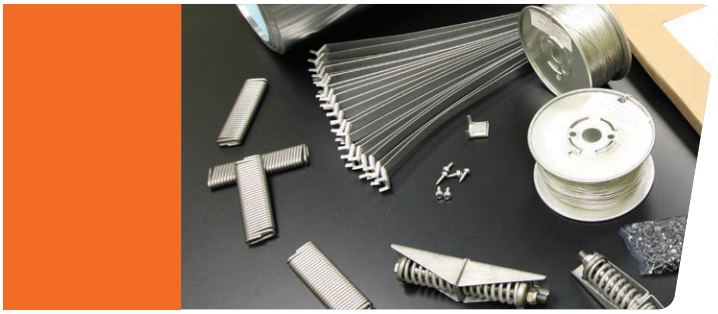
Saranex® CX Vapor Retarder Tape products are composed of Saranex CX Vapor Retarder Film coated with an acrylic adhesive designed for effective, long-lasting adhesion to a variety of substrates over a wide temperature range. Saranex CX Tape products conform easily to fittings, elbows, and joints, protecting these vulnerable areas from moisture intrusion and energy loss.

For maximum tape flexibility during installation, it is recommended that Saranex tape products be installed at ambient temperatures above 24°F (-4°C).

For more information, refer to the product data sheet.

Name	ASTM D374 Backing Thickness	ASTM D3652 Adhesive Thickness	Roll Length:	Roll Widths:
Saranex® CX Tape 520	2 mils, avg.	1.5 mils, avg	50 yards (46 m)	1" (2.5cm), 2" (5 cm), 3" (7.5 cm)
Saranex® CX Tape 560	6 mils, avg.	1.5 mils, avg	50 yards (46 m)	2" (5 cm), 3" (7.5 cm)

Metal Jacketing Accessories



JM offers several accessories for a complete metal jacketing system.

Stainless Steel Strapping: Manufactured from T-304 stainless steel in a special soft annealed temper to facilitate handling. It is available in ½" and ¾" widths and in .015" and .020" thickness. Blue painted ½" width, .020" thickness is available when a need exists to identify underlying asbestos-free insulation. Stainless steel strapping offers the greatest strength and corrosion resistance. T-316 Stainless Steel available upon request.

Aluminum Strapping: Manufactured from high-quality aluminum alloy conforming to ASTM B-209 designation. It is .020" in thickness to allow for maximum tensioning. Aluminum strapping is available in ½" and ¾" widths.

Aluminum or Stainless Steel Butt Straps: Available in 2" widths and 100' lengths, butt straps are used to seal circumferential joints of aluminum or stainless steel jacketing on insulated piping.

Aluminum Wing Seals: Manufactured from .032" aluminum to allow for maximum tensioning and binding power. They are available in ½" and ¾" widths.

Stainless Steel Wing Seals: Manufactured from heavy duty T-304 annealed stainless steel. They are available in ½", and ¾" widths. T-316 available upon request.

Stainless Steel Closed Seals: Manufactured from heavy duty .024" T-304 hard temper stainless steel. They are available in ½" x 7/8" and ¾" x 7/8" sizes. Closed seals are recommended in lieu of wing seals for use with strapping on tanks and/or vessels with diameters of 8' or more

Expansion Springs: 4" Type 300 series stainless steel flat expansion springs used with strapping up to ¾" to accommodate expansion and contraction of small diameter insulated and jacketed piping, tanks, vessels, and equipment.

Compression Springs: Assembled from components of Type 302 and 304 stainless steel, used with strapping to accommodate expansion and contraction of large diameter insulated and jacketed piping, tanks, vessels, and equipment.

Also available – Strapping Tools, Screws and Tie Wire.

Johns Manville

717 17th St.
Denver, CO 80202
800-866-3234
JM.com

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of the products listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you for current information.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www.jm.com/terms-conditions or call (800) 654-3103.

IND-902 04/22/25 (Replaces 11/03/23)