

## MINWOOL-1200® PIPE

MINERAL WOOL HIGH-TEMPERATURE & ACOUSTICAL PIPE INSULATION

**DATA SHEET** 

#### MINWOOL-1200® PIPE

MinWool-1200 Pipe is a water-repellent, mandrel-wound mineral wool pipe insulation with a thermosetting resin binder designed for piping and acoustical applications from 0°F (-18°C) up to 1200°F (650°C).

### **BENEFITS**

**Water-Repellent:** MinWool-1200 Pipe is water-repellent to help mitigate the risk of water intrusion. MinWool-1200 Pipe performs in accordance with BS EN 13472, absorbing less than 0.35kg/m² of water during water absorption tests at temperatures up to 425°F (218°C).

Acoustical Performance: MinWool-1200 Pipe insulation meets and exceeds ISO 15665 criteria for classes A3, B3, C3, and D3 (Shell Dep Spec. No 31).

Thermal Performance: Good thermal conductivity values help minimize and control heat loss, contributing to reduced operating costs and greater energy savings. High dimensional stability and low shrinkage reduce the potential for gaps forming at joints.

**Light Weight & Low Dust**: Easy to handle and fabricate, MinWool-1200 Pipe is easy to cut with a knife. Clean handling properties help reduce irritation and minimize job clean-up time and expense.

**Low Smoke & Flame Spread:** MinWool-1200 Pipe has a flame spread rating of 0 and a smoke developed rating of 0 when tested in accordance with ASTM E84 and UL 723.

Non-Combustible: MinWool-1200 Pipe is rated as non-combustible in accordance with ISO 1182.

#### **APPLICATIONS**

MinWool-1200 Pipe Insulation provides excellent thermal insulation performance for mechanical/power and process piping systems operating from 0°F (-18°C) to 1200°F(650°C). This molded pipe insulation is easily fabricated, cutting cleanly and easily with a knife. Very low inservice shrinkage helps prevent gaps from forming at joints, preventing costly thermal leaks.

#### **AVAILABLE FORMS & SIZES**

#### **Standard Thicknesses Available:**

1in to 6in (25mm-152mm) in ½in (15mm) Increments Standard Length Available: 36in (914mm)

Pipe Sizes								
(in.)	(mm)	Form						
1/2 - 6	15-152	One Piece						
7-24	175-600	Two Piece						
25-44	625-1100	Four Piece						

#### **LINEAR SHRINKAGE AFTER 24 HRS. @ TEMPERATURE**

Tempe	Shrinkage				
°F	°F °C				
1050	566	0			
1200	649	<2			



#### **PRODUCT CERTIFICATION**

When ordering material to comply with any government specification or any other listed specification, a statement of that fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing, and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing. Please refer to our Certification Procedures and Charges page for pricing. Call customer service for more information (1-800-866-3234).

#### **QUALITY STATEMENT**

Johns Manville industrial products are designed, manufactured and tested to strict quality standards in our own facilities. This, along with third party auditing is your assurance that this product delivers consistently high quality.

# **SPECIFICATION COMPLIANCE**

ASTM C447 (Maximum Service Temp.)  ASTM C547 Types I, II, IV Grade B* (Material Spec.)  ASTM C585 (Dimensional Pipe Insulation)  ASTM C1617 (Corrosivity to Steel)  ASTM C795/C871/C692 Corrosion: Austenitic Stainless Steel  ASTM C1104 (Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  Flame Spread: 0 Smoke Developed: 0  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)  1200°F (650°C)  Complies  Complies  Complies   Complies   Sppm Chloride Solution  Passes   Flame Spread: 0 Smoke Developed: 0  Smoke Developed: 0  ISO 1182 (Non-Combustible)  Passes  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)  ISO 15665 (Acoustic Insulation)  Pass: A3, B3, C3, D3						
(Material Spec.)  ASTM C585 (Dimensional Pipe Insulation)  ASTM C1617 (Corrosivity to Steel)  ASTM C795/C871/C692 Corrosion: Austenitic Stainless Steel  ASTM C1104 (Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)  Complies  Aspm Characteristics  Passes  Recovery after 104  Compression  100%  ASTM C1335 (Shot Content)  Solution  Passes  Flame Spread: 0  Smoke Developed: 0  Smoke Developed: 0  Smoke Developed: 0  Complies  Comp	ASTM C447 (Maximum Service Temp.)	1200°F (650°C)				
ASTM C1617 (Corrosivity to Steel)  ASTM C795/C871/C692 Corrosion: Austenitic Stainless Steel  ASTM C1104 (Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)		Complies				
ASTM C1617 (Corrosivity to Steel)  ASTM C795/C871/C692 Corrosion: Austenitic Stainless Steel  ASTM C1104 (Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  Flame Spread: 0 Smoke Developed: 0  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)  Solution  Passes  100%  40.325 (Shot Content)  Solution  100%  40.225 (Shot Content)  Solution  100%  40.22 (Shot Content)  Solution  Passes  100%  40.325 (Shot Content)  Solution  41% by Weight, 40.22 (Shot Content)  Solution	ASTM C585 (Dimensional Pipe Insulation)	Complies				
Corrosion: Austenitic Stainless Steel  ASTM C1104 (Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)  Passes  Passes  Flame Spread: 0  Smoke Developed: 0  Passes  100%	ASTM C1617 (Corrosivity to Steel)					
(Water Vapor Sorption)  ASTM E84 (Surface Burning Characteristics)  ISO 1182 (Non-Combustible)  Recovery after 10% Compression  ASTM C1335 (Shot Content)  BS EN 13472 (Water Absorption)	, .	Passes				
Smoke Developed: 0		<.02% by Volume				
Recovery after 10% Compression         100%           ASTM C1335 (Shot Content)         <25%	ASTM E84 (Surface Burning Characteristics)	'				
ASTM C1335 (Shot Content)         <25%	ISO 1182 (Non-Combustible)	Passes				
BS EN 13472 (Water Absorption) <0.35kg/m²	Recovery after 10% Compression	100%				
	ASTM C1335 (Shot Content)	<25%				
ISO 15665 (Acoustic Insulation) Pass: A3, B3, C3, D3	BS EN 13472 (Water Absorption)	<0.35kg/m <sup>2</sup>				
	ISO 15665 (Acoustic Insulation)	Pass: A3, B3, C3, D3				

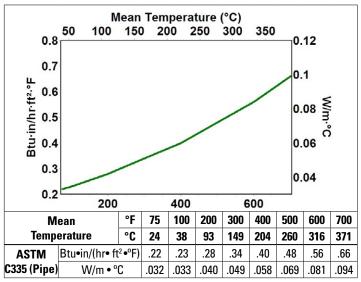
<sup>\*</sup> Heat up schedule: begin at 300°F and increase by 100°F per hour until reaching temperature

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## THERMAL CONDUCTIVITY



<sup>\*</sup>MinWool-1200 Pipe Insulation is tested in accordance with ASTM C335.

#### **SOUND ABSORPTION COEFFICIENTS**

Thickness	1/3 Octave Band Center Frequencies, Hz								
(in/mm)	125	250 500		1000	2000	4000	NRC		
1.5/38	0.19	0.80	1.01	1.03	0.99	0.99	0.95		
2.0/51	0.38	0.93	1.01	1.00	0.97	1.00	1.00		
3.0/76	0.84	0.89	0.97	1.02	1.02	1.00	1.00		
4.0/102	0.80	0.90	0.96	1.03	0.99	1.01	0.95		

### **ISO 15665 ACOUSTICAL REQUIREMENTS**

		Octave Band Center Frequency (Hz)								
	Range of Nominal	125	250	500	1000	2000	4000	8000		
Class	Diameter D (IPS)*	Minimum Insertion Loss (dB)								
A1	D < 12"	-4	-4	2	9	16	22	29		
A2	$12'' \le D < 26''$	-4	-4	2	9	16	22	29		
A3	$26'' \leq D < 40''$	-4	2	7	13	19	24	30		
B1	D < 12"	-9	-3	3	11	19	27	35		
B2	12" ≤ <i>D</i> < 26"	-9	-3	6	15	24	33	42		
В3	$26'' \le D < 40''$	-7	2	11	20	29	36	42		
C1	D < 12"	-5	-1	11	23	34	38	42		
C2	$12'' \le D < 26''$	-7	4	14	24	34	38	42		
C3	$26'' \le D < 40''$	1	9	17	26	34	38	42		
D2	$12'' \le D < 26''$	-3	4	15	36	45	45	45		
D3	$26'' \leq D < 40''$	3	9	26	36	45	40	40		

<sup>\*</sup> Pipe sizes used are:

Less than 12"IPS outside diameter

Greater than or equal to 12"IPS diameter but less than 26"IPS Greater than or equal to 26"IPS diameter but less than 40"IPS

### ASTM E1222 - STANDARD TEST METHOD FOR LABORATORY MEASUREMENT OF THE INSERTION LOSS OF PIPE LAGGING

Thickness						Minimun	n Insertion	Loss, dB					
(in/mm)	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
1.5/38	-1	1	2	6	8	16	16	17	18	21	20	23	31
2.0/51	0	1	1	7	8	17	19	22	22	26	27	30	36
3.0/76	0	0	1	8	10	17	17	23	24	28	29	32	36
4.0/102	7	3	6	11	13	21	20	31	30	33	34	35	42



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 MinWool-1200® Pipe 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.