

## MinWool-1200 Pipe

### High Temperature Insulation

#### Description

IIG MinWool-1200 Pipe Insulation is made of inorganic fibers derived from basalt, a volcanic rock, 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 resistance applications.

#### Applications

MinWool-1200 Pipe Insulation provides excellent thermal insulation performance for mechanical/power and process piping systems operating from sub-ambient to 1200°F (649°C). This molded pipe insulation is easily fabricated, cutting cleanly and easily with a knife. Very low in-service shrinkage helps prevent gaps from forming at joints, preventing costly thermal leaks. The insulation is designed to be field-jacketed.

#### Advantages

**Excellent Thermal Performance.** Good thermal conductivity values help maximize control of 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.

**Good Compressive Strength.** Molded pipe sections maintain structural integrity under severe operating conditions. Thickness stays uniform; there is less jacket damage.

**Lightweight, Low Dust.** Easy to handle and fabricate, MinWool-1200 is easy to cut with a knife. No sawing is required. Clean handling properties help reduce irritation and minimize job clean-up time and expense. It may be installed directly on hot surfaces; system shutdown and staged heat-up are not required.

**Noncombustible.** MinWool-1200 has a flame spread rating of 5 and a smoke developed rating of 0 when tested in accordance with ASTM E 84, UL 723, CAN/ULC-S102-M. It is rated as non-combustible in accordance with ASTM E 136 and CAN4-S114-M.

**Unique Bio-Soluble Fiber.** IIG MinWool-1200 has been tested according to EU protocol ECB/ TM/27, Revision 7, Directive 97/69/EC and exceeds the regulatory requirements for solubility.

#### Available Types

Standard Thicknesses . . . . .1, 1½, 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6"  
(25, 38, 51, 64, 76, 89, 102, 114, 127, 140, 152 mm)

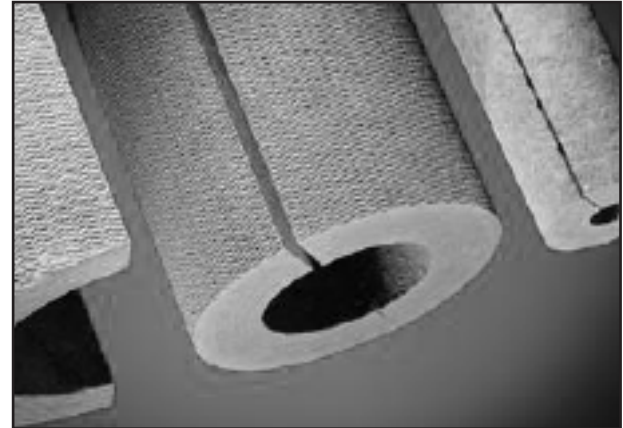
#### Also Available:

Boiling Water Tested (BWT) pipe insulation, specifically formulated to pass the US Navy test for continued performance following intermittent flooding conditions

#### Pipe Sizes

(in.)	(mm)	Form
½ - 12	15 - 300	One Piece
14 - 24	350 - 600	Two Piece
24 - 44	625 - 1100	Four Piece

For pipe sizes 19" to 24" (457 mm to 600 mm), some thick wall pieces are shipped as four piece quads.



#### Specification Compliance

ASTM C 547	Types I & II
ASTM E 84 Flame Spread/Smoke Developed	5/0
ASTM E 136	Noncombustible
ASTM C 585	Complies
ASTM C 795	Complies
US Coast Guard	164.009 (Noncombustible)
CAN/CGSB-51.9	Class 3
NRC Reg. Guide 1.36	Passes
EU Protocol for Bio-Soluble Fiber	Passes

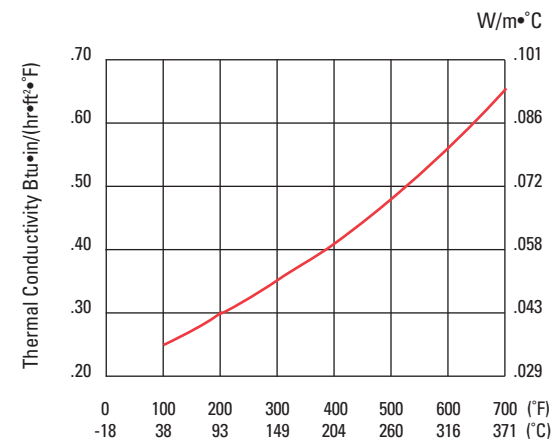
#### Physical Properties

Maximum Recommended Continuous Service Temperature	1200°F (649°C)
Recovery after 10% Compression	100%
Shot Content	<20%

#### Linear Shrinkage After 24 Hrs. at Temperature

Temperature	Shrinkage
°F	°C (%)
1050	566 0
1200	649 <2

#### Thermal Conductivity ("k")



Mean Temperature	°F	75	100	200	300	400	500	600	700
	°C	24	38	93	149	204	260	316	371
	Btu•in/(hr•ft²•°F)	.23	.25	.30	.35	.41	.48	.56	.65
	W/m•°C	.033	.036	.043	.050	.059	.069	.081	.094

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### Government 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 price page IIG-CSP-3 for Certification Procedures and Charges. Call customer service for more information.

### Application Recommendations

MinWool-1200 Pipe insulation can be directly installed on heated piping. One-piece hinged sections are opened, placed over the pipe, closed and secured with wires, bands, or tape. Two-piece half sections are placed on the pipe and wired, banded, or taped in place. The insulation may be finished with various rigid jacketing depending on requirements for physical abuse, weather and chemical resistance. Jacketing may be secured using screws, rivets, or bands. If a vapor retarder is required, screws, rivets or any other penetrations must be sealed.

For temperatures over 600°F (316°C), good insulation practice suggests double-layer applications. Single-layer installation requires good workmanship to minimize heat transfer and hot or cold joints. This insulation may be installed in single or multiple layers at all temperatures up to 1200°F (649°C). In multiple-layer applications, each layer must be secured in place before the next layer is installed. Joints in multiple-layer applications should be staggered to reduce heat transfer.

Industrial Insulation Group, LLC is a Calsilite/Johns Manville joint venture. IIG manufactures MinWool-1200 mineral fiber pipe, block and a variety of other insulations; Thermo-12® Gold Calcium Silicate pipe and block insulation; Super Firetemp® fireproofing board; Sproule WR-1200™ Perlite pipe and block insulation; high temperature adhesives, and insulating finishing cement.

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**For Customer Service  
and Order Placement**  
(866) 444-4380  
Fax: (866) 444-4766

**For Sales  
Information**  
(800) 866-3234  
Fax: (610) 358-0602

**For Technical  
Information**  
(800) 872-0338  
Fax: (970) 858-9641



**IIG MinWool, LLC**  
*A Calsilite/Johns Manville Joint Venture*

908 John Bussey Drive  
Phenix City, AL 36869  
www.iig-llc.com

The physical and chemical properties of the MinWool-1200 Pipe High Temperature Insulation presented 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. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Customer Service Office to assure current information. **All Industrial Insulation Group products are sold subject to the IIG Limited Warranty and Limitation of Remedy. For a copy of the IIG Limited Warranty and Limitation of Remedy, call (800) 334-7997.**