

Thermo-12® Gold Pipe and Block Insulation

Description

Thermo-12 Gold is a preformed, high temperature, abuse-resistant pipe and block insulation with exceptional structural strength. It is inorganic and noncombustible. It is composed of hydrous Calcium Silicate for use on systems operating up to 1200°F (649°C). The gold color provides positive identification that it is asbestos-free. Thermo-12 Gold meets or exceeds the physical and thermal property requirements of ASTM C533, Type I. It is composed primarily of lime, silica, and reinforcing fibers.

Applications

Because of its strength, low thermal conductivity and durability, it is the preferred product for application on high temperature piping and equipment. Thermo-12 Gold is especially recommended for use in the power generation and process industries where piping and equipment operate up to 1200°F (649°C). Thermo-12 Gold will not burn and may be used for fire protection in some applications.

Advantages

- Superior resistance to breakage and physical abuse during shipping, fabrication, and installation
- Fast, easy installation
- Large selection of sizes and forms
- Noncombustible

Available Forms and Sizes

Thermo-12 Gold pipe insulation is 36" (914mm) in length, and is available in thickness from 1 to 3" (25 to 76mm) in ½" (13mm) increments. For thicknesses greater than 3" (76mm), factory double layer is available for thicknesses up to 6" (152mm). Thermo-12 Gold block insulation is 36" (914mm) in length and is available in widths of 6, 12, and 18" (152, 305, and 457mm). Thicknesses are available from 1 to 3" (25 to 76mm).

Pipe Sizes

<u>In</u>	<u>mm</u>	<u>Form</u>
1/2—24	13—600	Pipe Insulation
20—37	500—925	Quad Segments
38—52	950—1300	Hex Segments
52+	1300+	Scored Block

Block 6, 12, and 18" (152, 305, and 457mm) wide



Additional Information

Technical information and MSDS www.iig-llc.com

Safety

Surface Burning Characteristics. When tested in accordance with ASTM E84, NFPA 255, or UL 273, Thermo-12 Gold has a flame spread/smoke developed rating of 0/0.

Hot Surface Performance. Thermo-12 Gold passes ASTM C411 to 1200°F (649°C)

Average Thermal Conductivity, ("k")

Pipe Insulation

Mean Temperature		Btu in/hrft ² °F	W/m ² K
°F	°C		
200	93	0.41	0.059
300	149	0.45	0.065
400	204	0.50	0.072
500	260	0.55	0.079
600	315	0.60	0.086
700	371	0.65	0.094

Pipe insulation tested in accordance with ASTM C335

Block Insulation

Mean Temperature		Btu in/hrft ² °F	W/m ² K
°F	°C		
200	93	0.41	0.059
300	149	0.45	0.065
400	204	0.50	0.072
500	260	0.55	0.079
600	315	0.60	0.086
700	371	0.65	0.094

Block insulation tested in accordance with ASTM C177 and C518

Thermo-12 Gold

Physical Properties

Density (Avg) 14.5 pcf (232 kg/m³)
Recommended Maximum Continuous
Service Temperature 1200°F (649°C)

Flexural Strength, (Avg) 65 psi (448 kPa)
Compressive Strength (minimum)
@5% deformation 100 psi (689 kPa)
Abrasion Resistance (% weight loss by tumbling)
10 min (Avg):..... 15
20 min (Avg):..... 30

Linear Shrinkage After 24 Hours at Temperature

Temperature 1200°F (649°C)
Length:..... <2%
Width: <2%
Thickness:..... <2%

Specification Compliance

ASTM C 533:..... Type I
ASTM C 795:..... Passes
ASTM E 84, Flame Spread, Smoke developed 0,0
ASTM C411:..... Passes at 1200°F
MIL-I-2781 to 1200°F
MIL-PRF-2819, Class 2
NRC Regulatory Guide 1.36
MIL-I-24244

Specification Compliance

When ordering material to comply with any ASTM, government, or other specification, a statement of the fact must appear on the purchase order. These specifications require specific lot testing and prohibit the certification of the lot after the shipment has been made. There may be additional charges associated with compliance testing. Refer to customer service for more information.

For Customer Service and Order Placement

Brunswick GA
2100 Line St
Brunswick, GA, 31520
800-334-7997
Fax: 912-267-6096

Ruston, LA
276 Fiberboard Rd
Grambling, LA 71245
800-551-4902
Fax: 318-255-5821

Mesa, CO
1110 16 Rd
Fruita, CO 81521
800-525-0017
Fax: 970-858-6248

International
800-551-4902
Fax: 318-255-5821

For Sales Information

800-866-3234
Fax: 610-358-0602

For technical information and assistance regarding application information, code approvals, and performance specifications

Phone: 800-872-0338
Fax: 970-858-9641

IIG

Industrial Insulation Group, LLC is a joint venture company between Calsilite Manufacturing and Johns Manville International. IIG manufacturers MinWool-1200 mineral fiber pipe, board, and batt; Super Firetemp board products; Thermo-12 Calcium Silicate pipe and block insulation; Sproule WR-1200 Perlite pipe and block insulation; high temperature adhesives, and insulating finishing cement.

ISO 9000 Certification

Thermo-12 Gold is designed, manufactured, and tested in our own facilities. Two of the three facilities are certified and registered to stringent ISO 9002 (ANSI/ASQ 90) series quality standards. This certification, along with regular independent third-party auditing for compliance, is your assurance that all our products deliver consistently high quality.

The physical and chemical properties of IIG products represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are subject to change without notice. Any reference 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 Customer Service Office nearest you to assure current information. **All Industrial Insulation Group products sold are subject to the IIG Warranty and Limitation of Remedy and Liability.** For a copy of the warranty, call 800-334-7997.



Industrial Insulation Group

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