



## Thermo-12® RainJacket

### FACTORY JACKETED PIPE AND EQUIPMENT INSULATION SYSTEM

#### DESCRIPTION

Thermo-12 RainJacket Insulation System is a preformed, high temperature, abuse-resistant pipe insulation with exceptional structural strength, composed of hydrous calcium silicate with a weather protection jacket. The jacket is factory applied over RainKote®, a blue surface stabilizer. This insulation system is designed for operating temperatures from 80°F(27°C) to 1200°F(650°C) with insulation surface temperatures not to exceed 300°F (150°C). It is inorganic, non-combustible, Asbestos Free and meets or exceeds the physical and thermal requirements of ASTM C533, Type 1. Integral to Thermo-12 RainJacket is **XOX**, a distinctive formula and process that inhibits corrosion to outside surfaces of pipe and equipment.

#### ADVANTAGES

- **Excellent resistance to damage** enhancing the life of the system.
- **Inhibits corrosion on carbon steel** and stainless steel piping and equipment.
- **Consistent thermal performance to 1200°F (650°C).**
- **Noncombustible Insulation.**
- **Structural strength protects** against damage to lagging.
- **Asbestos, Mercury and Lead Free.**
- **No organic binders;** No loss of insulation integrity due to binder burn out.
- **Large selection** of sizes and forms.

#### APPLICATIONS

Because of its low thermal conductivity, durability, compressive strength, corrosion inhibiting properties, and factory applied jacket, it is the preferred product for application on high temperature piping and equipment. Thermo-12 Gold RainJacket is especially recommended for use in the petrochemical, power generation and process industries where piping and equipment operate between 80°F (27°C) to 1200°F (650°C). The **XOX** corrosion inhibiting properties are not diminished by temperature cycling so the corrosion protection will continue for the life of the product. Please visit our website at [www.iig-llc.com](http://www.iig-llc.com) for specific application information.

#### AVAILABLE FORMS AND SIZES

Pipe Sizes		Thermo-12 RainJacket Form
in.	mm	
½ - 24	15-60	Pipe Insulation

Thermo-12 RainJacket pipe insulation is 36" (914 mm) in length, and is available in thicknesses from 1" to 6" (25 mm to 152 mm) in ½" (13 mm) increments.

- Double Layer - Over 3" thick in ½" increments to 6" thick  
Note: Inner layer must not be faced.



## Thermo-12® RainJacket

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



#### FIRE SAFETY

**Surface Burning Characteristics.** When tested in accordance with ASTM E84, NFPA 225, or UL 273, Thermo-12 has a flame spread/smoke developed rating of 0/0. Jacket has a flame spread/smoke developed rating of 25/50.

#### JACKET PROPERTIES

- Zero permeability
- Interior and exterior use
- Embossed natural aluminum surface
- High puncture and tear resistance
- Installation of tape joints and laps in temperature down to -10°F (-23°C)
- Maximum recommended temperature 300°F (150°C)

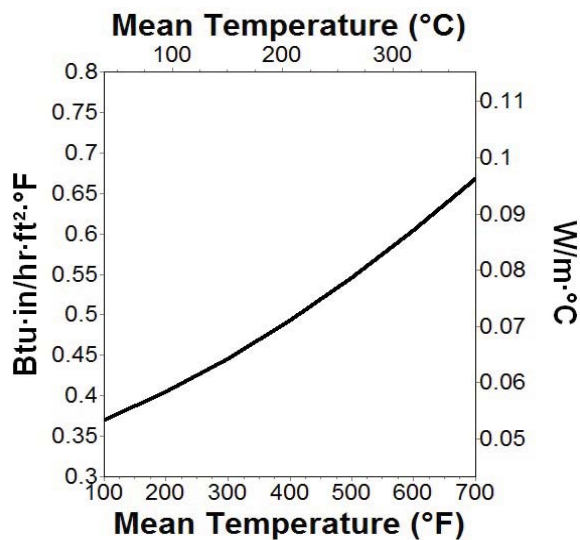
#### ADDITIONAL INFORMATION AND MSDS

Please visit our website at [www.iig-llc.com](http://www.iig-llc.com).

# Thermo-12<sup>®</sup> RainJacket

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### THERMAL CONDUCTIVITY \*



Mean Temperature	°F	100	200	300	400	500	600	700
	°C	38	93	149	204	260	316	371
Btu · in/(hr · ft <sup>2</sup> · °F)		.37	.41	.45	.49	.55	.60	.67
W/m · °C		.053	.058	.064	.071	.079	.087	.096

\* Thermo-12 RainJacket Pipe Insulation as tested in accordance with ASTM C177, ASTM C518 and ASTM C335.

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

### ISO 9000 CERTIFICATION

Thermo-12 Gold is designed, manufactured, and tested in our own facilities, which are certified and registered to stringent ISO 9000(ANSI/ASQ 90) series quality standards. This certification, along with regular independent third-party auditing for compliance, is your assurance that this product delivers consistent high quality.

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



**Industrial Insulation Group, LLC**

A Calsilite/Johns Manville Joint Venture

2100 LINE STREET • BRUNSWICK, GA 31520

### SPECIFICATION COMPLIANCE

ASTM C165 Compressive Strength	>100psi(690kPa) 5% compression
ASTM C203 Flexural Strength	>50psi(450kPa)
ASTM C302 Density (Dry) Average	>14pcf(230kg/m <sup>3</sup> )
ASTM C356 Linear Shrinkage	<2.0% after 24hr Soaking period at 1200°F(650°C)
ASTM C421 Abrasion Resistance Weight Loss by Tumbling	After the first 10 min <20% After the second 10 min <40%
ASTM C447 Maximum Service Temperature	1200°F(650°C)
ASTM C533, Type I Material Specification	Passes
ASTM C665 Corrosivity to Steel	Passes-Inhibits
ASTM C795/C871/C692 Corrosion	Passes-Inhibits
ASTM C1338 Fungi Resistant	Passes
ASTM C1617 Corrosion	Passes-Inhibits
ASTM E84 Surface Burning Characteristics	Flame Spread -0 Smoke Developed -0
ASTM E119 Building Fire Test	Passes
ASTM E136 Non Combustibility	Passes
BS 476 PART II	Passes
Can/ULC S-102 Surface Burning Characteristics	Flame Spread -0 Smoke Developed -0
City of New York MEA	436-88-M
ISO 8143 Material Specification	Passes
MIL-I-24244 Military Specification	Passes
MIL-I-2781F to 1200°F(650°C) [Pipe] Military Specification	Passes
MIL-I-2819F Class 2 to 1200°F(650°C) [Block] Military Specification	Passes
NRC Reg. Guide 1.36	Passes
NFPA 255 Surface Burning Characteristics	Flame Spread -0 Smoke Developed -0
UL 1709 Hydrocarbon Fire Test	Rated (See IIG document TB005)

The physical and chemical properties 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, email - info@iig-llc.com.

**CUSTOMER SERVICE,  
TECHNICAL & GENERAL INFORMATION**

(800) 866-3234

[www.iig-llc.com](http://www.iig-llc.com)