

# The Evolution of Thermo-1200® Calcium Silicate: **TOUGHNESS REDEFINED**

Thermo-1200<sup>®</sup> is a water-resistant, Type I calcium silicate pipe and block insulation, with the XOX Corrosion Inhibitor®, designed for applications that operate at temperatures up to 1200°F (650°C). When properly installed and maintained, its superior physical strength and inorganic binders can provide an insulation lifespan of up to 25 years or more.



## **PROPERTIES OF THERMO-1200 CALCIUM SILICATE**



Water-resistant: Thermo-1200 is the only calcium silicate manufactured in North America that is water-resistant, capable of withstanding short periods of rainfall without absorbing water in excess.



Durable: Thermo-1200 has exceptional compressive strength (>100 psi/ 690kPa), making it ideal for applications where mechanical abuse is likely. When properly installed and maintained, Thermo-1200 can provide a lifespan of 25 years or more.



Inhibits Corrosion: The XOX Corrosion Inhibitor® is integral to the chemical makeup of Thermo-1200, helping to protect against corrosion under insulation (CUI) and making Thermo-1200 one of the best insulations for mitigating CUI.



**Passive Fire Protection:** Meets UL-1709 Requirements, "Rapid Rise Fire Tests of Protection Materials for Structural Steel."

## Let's Explore How Thermo-1200 Calcium Silicate Has Evolved Over the Years

1997

## **ISO 9001 Quality Management Certification**

The plant in Ruston, LA received ISO 9001 quality management certification. 1999



### **ISO 9001 Quality Management** Certification

Two years later, the plant in Fruita, CO, also received ISO 9001 quality management certification.

2002

#### **XOX CORROSION INHIBITOR** was first introduced

A proprietary corrosion inhibiting formula that helps inhibit CUI. It has been shown to decrease corrosion on metal surfaces by depositing a protective layer of leachable silicates and ions onto the metal surface. + 2012

Johns Manville (JM) acquired Industrial Insulation Group (IIG), manufacturer of Thermo-12® Gold Calcium Silicate

JM provided more R&D capabilities, improved processes, and implemented more rigorous testing procedures for the calcium silicate product line.

2017

#### **Exceptional performance in long**term accelerated corrosion testing in "real-world" conditions

Long-term in-situ corrosion testing: A 6-month system exposure test of continuous wet/dry and low/high-temperature cycling with both tap water and a 1500 PPM chloride solution.

#### **Water-resistance feature** added to Thermo-12 Gold

Engineered to withstand a heavy rainfall (11/4" of rain/ hour) for up to 20 minutes without absorbing more than 15% of its weight in water.

## Name changed from

Thermo-12 Gold to Thermo-1200 The name change coincided with the upgrade to water-resistance and updated packaging. "1200" refers to the temperature rating of 1200°F and added consistency to the portfolio of hightemperature insulation materials manufactured by JM: MinWool-1200® and Sproule WR-1200®.

**2019** 



**Curved Segments were introduced for pipe** sizes and vessels ranging between 30" - 126" Curved Segments are 6" W x 36" L segments

of Thermo-1200 that are cut on a curvature to match the radius of a large diameter pipe or vessel. Curved Segments offer a more precise fit than scored and v-grooved block, and are supplied in thicknesses of 1.5", 2", 2.5", and 3".

2020

#### requirements for up to 60 min when tested The UL-1709 "Rapid Rise Fire Tests of Protection

Thermo-1200 meets UL 1709

Materials for Structural Steel" provides ratings expressed in hours. The fire temperature is maintained at 2000°F and is used to provide a means to investigate fire-resistive assemblies intended for areas such as petrochem facilities.

## Thermo-1200 received CE Certification\*

CE is an administrative certification that

indicates conformity with health, safety and environmental protection standards sold within

the European Economic Area (EEA).

\*Fruita, CO Location Only