

# PROTECTION VIA INSULATION:

## THE EVOLUTION OF THERMO-1200® CALCIUM SILICATE: TOUGHNESS REDEFINED

BY JOHNS MANVILLE INSULATION INTEL®

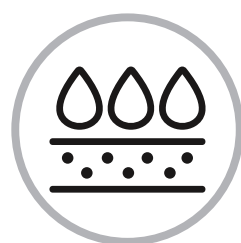
**Thermo-1200®** is a water-resistant, Type I calcium silicate pipe and block insulation, with the XOX Corrosion Inhibitor®, designed for applications that operate at temperatures up to 1200°F (650°C). When properly installed and maintained, its superior physical strength and inorganic binders can provide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



**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.



**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.



**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.

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.

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 (1¼" 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 high-temperature insulation materials manufactured by JM: MinWool-1200® and Sproule WR-1200®.

2020 ←

**Thermo-1200 meets UL 1709 requirements for up to 60 min when tested**  
The UL-1709 "Rapid Rise Fire Tests of Protection 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

1999 →

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

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.

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".