

Thermo-1200™ is a **WATER RESISTANT\***, Type I calcium silicate designed to inhibit water absorption. In the event of a typical rainstorm, the 85% of the water, or more, will bead on the surface of the insulation without penetrating into the substrate. This will allow contractors some additional time to install the insulation without immediately applying the jacketing afterward, offering more time and flexibility in the installation process than has traditionally been available.

This product is the first of its kind, and naturally, people have questions. Below, you'll find a list of frequently asked questions to help you navigate your transition to Thermo-1200 water resistant calcium silicate.



## COMMERCIAL

**1. Have you changed the name of JM IIG's calcium silicate product?**

Yes. The water resistant product will be named Thermo-1200. Our current calcium silicate is called Thermo-12 Gold®.

**2. When will Thermo-1200 be available?**

Thermo-1200 will be available in August 2017 from our Fruita, CO facility, and we anticipate releasing Thermo-1200 from our plant in Ruston, LA in October 2017.

**3. Will you publish a new SDS?**

The SDS for both products is the same, but there is a new SDS that lists both Thermo-1200 and Thermo-12 Gold. It can be found on JM.com. [Click here.](#)

**4. Will you publish a new data sheet?**

Yes, the data sheet is available on JM.com. [Click here.](#)

**5. Is there a standard letter to assist me in changing my submittal of Thermo-12 Gold to Thermo-1200?**

The JM industrial specification team can assist with the submittal change by providing a standard letter, data sheet, and SDS. Contact us for assistance.

**6. Will you make both Thermo-12 Gold and Thermo-1200?**

No. Once we make the conversion at our manufacturing facilities, we will produce only Thermo-1200.

**7. Can I specify orders strictly with Thermo-1200 once it has been released?**

No. We will ship from our current inventory first and cycle in Thermo-1200 as the plant inventory turns. Your orders may, and will most likely be, mixed orders with Thermo-12 Gold and Thermo-1200 for the duration of 2017.

**8. Is there a program that will help me transition my inventory?**

We will not be offering a program to help in inventory transition, but we encourage you to begin to reduce your Thermo-12 Gold inventory levels by shipping first in, first out (FIFO). This will help you to prepare for receiving Thermo-1200 and transitioning your inventory.

**9. When do you anticipate you will have your plant inventory completely converted to Thermo-1200?**

As we cycle through our plant inventories, we will ship the Thermo-12 Gold product first. Our goal is to exhaust the majority of our Thermo-12 Gold inventory by year end.

## PRODUCT PERFORMANCE

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### 10. Is Thermo-1200 hydrophobic?

No, the product is not hydrophobic. Thermo-1200 is designed to resist an occasional, standard rainstorm, allowing the contractor added time to apply the weatherproof jacket. We, however, continue to recommend that installers apply weatherproof jacketing as soon as feasibly/reasonably possible. If you are looking for a hydrophobic insulation, [Sproule WR-1200®](#) and [InsulThin™ HT](#) are both hydrophobic insulations that may be more suited to the needs of your application.

### 11. How long can I leave the product exposed and unjacketed?

Typically, installers can install the insulation faster than they can apply the jacketing. Thermo-1200 is designed to allow the contractor a little more time and flexibility to get the jacketing installed. Regardless, all insulation products should have the weather protective jacket installed as quickly as is practical.

### 12. How much water will it absorb?

Thermo-1200 will absorb less than 15% of its weight in water after exposure to 20 minutes of a typical rainstorm (1.25"/hour). This ensures that Thermo-1200 does not exceed the maximum acceptable moisture content (20%) designated by ASTM C533.

### 13. How does the water absorption of Thermo-1200 compare to the water absorption of Thermo-12 Gold?

After 20 minutes of exposure to a typical rainstorm (1.25"/hour), Thermo-1200 will absorb less than 15% of its weight in water, while Thermo-12 Gold, which is a typical calcium silicate, can absorb as much as 80% of its weight in water in that same time-frame.

### 14. Has the insulating value changed?

No, the thermal performance of Thermo-1200 remains unchanged from Thermo-12 Gold.

### 15. Is the water resistance a surface treatment?

The water resistance is not a surface treatment. It is an integral component of the Thermo-1200 formulation (Figure 1). As such, Thermo-1200 is water resistant on both the outer surface as well as the inner surface that is in contact with the pipe.

### 16. If I cut the product will it still be water resistant?

Although the water resistant chemistry is part of the formula, there is a tendency for it to migrate toward the outer edges of the insulation during the manufacturing process. Hence, exposed, center-cut areas may absorb more water than the surfaces of the insulation. When tested for 20 minutes in a typical installation configuration (i.e. full pipe configuration), the water absorption remains below 15%, as previously stated.



FIGURE 1

### 17. Does Thermo-1200 still have the corrosion inhibitor in it?

Yes. Thermo-1200 still has the XOX Corrosion Inhibitor®. This corrosion inhibitor is unique to Johns Manville's calcium silicate (Thermo-12 Gold and Thermo-1200) as well as our expanded perlite (Sproule WR-1200). The XOX Corrosion Inhibitor will activate in the presence of water to help neutralize corrosive ions and create a passivation layer on the surface of the pipe. To learn more about the XOX Corrosion Inhibitor and how it can help prevent corrosion under insulation (CUI), please [click here](#).

### 18. Does this mean that you will stop making [Sproule WR-1200](#) (perlite)?

While we will no longer be producing Thermo-12 Gold, we will continue to produce Sproule WR-1200 (perlite). Sproule WR-1200 is a hydrophobic, high-temperature insulation, and Thermo-1200 is a water resistant, high-temperature insulation. Each material provides unique benefits that should be carefully considered during the specification process and taken into account during installation and operation.

### 19. Is there a new ASTM designation for Thermo-1200?

There is no new ASTM designation for Thermo-1200 currently.

### 20. Without a new ASTM designation, what language should we use to specify Thermo-1200?

We recommend using language with respect to both, "Formulated moisture resistance and corrosion inhibitor."

### 21. Does Thermo-1200 meet all of the ASTM requirements that Thermo-12 Gold met?

Yes, the thermal performance of the insulation has not changed, and the insulation still meets all ASTM requirements for Type I calcium silicate.

**22. Is there an ASTM rain test for this product?**

Currently, there is no ASTM rain test for insulation. We developed a test (Figure 2) that we believe best simulates rain in an objective and measurable manner by allowing us to expose the insulation to rain-like conditions while controlling the volume of water exposure. This has enabled us to study Thermo-1200's performance under a variety of different "rainfall" conditions, ranging from mild, to moderate, to extreme.

**23. Are there any performance changes of any kind Thermo-1200?**

The only change between the two products is that Thermo-1200 is water resistant. Other than that, Thermo-1200 and Thermo-12 Gold are identical in all other aspects of performance.

**24. Will the water resistant features of the insulation burn off at higher temperatures like hydrophobic treatments on other insulations?**

All water resistant and hydrophobic treatments are organic in nature. As such, the hydrophobe will oxidize and dissipate beginning at about 450°F. Two things to remember: 1) there is a thermal gradient through the insulation, and the parts of the insulation that do not experience temperatures above 450°F will still maintain original water repellency. 2) the XOX Corrosion Inhibitor is still in the insulation, regardless of the operating temperature. So, if water should enter the system, the XOX Corrosion Inhibitor will still be present to help prevent CUI.

**25. Will the adhesives commonly used to glue fittings together (sodium silicate, fibrous adhesive, etc) still work with Thermo-1200?**

The typical adhesives will work as they have in the past.

**26. Will insulating cement still stick to Thermo-1200?**

Yes.

**27. Does anyone else manufacture water resistant calcium silicate?**

Johns Manville Industrial Insulation Group is the only insulation manufacturer in North America to produce water resistant calcium silicate. While we are aware of one other manufacturer in Asia that produces water resistant calcium silicate, it is an expensive, custom-order product that is not readily available.

**28. Will Thermo-1200 look different than Thermo-12 Gold?**

It is very difficult to distinguish the two products visually. The packaging (short-term) will have a water resistant sticker (Figure 3), identifying the new product while we complete the process of changing our carton graphics to a new design. Once that process is complete, "water resistant" will be printed clearly on all our cartons.

FIGURE 3

**29. How can I tell if I have Thermo-1200 or Thermo-12 Gold?**

While the products are difficult to distinguish in terms of appearance, each material can be easily recognized by its carton (see question above). If you do not have access to a carton, you can drip a small amount of water on the product to see if it beads on the surface of the insulation or if it soaks into the insulation. This small amount of water will not damage Thermo-12 Gold.



IF YOU HAVE ADDITIONAL QUESTIONS PLEASE CALL 1-800-866-3234 OR VISIT [WWW.JM.COM/THERMO-1200](http://WWW.JM.COM/THERMO-1200).

*\*Thermo-1200 water-resistant calcium silicate is not hydrophobic. Based on internal testing, Thermo-1200 is designed to be able to withstand short periods of rainfall without absorbing water in excess. The volume of water absorption depends on the duration of exposure and the amount of rainfall. The insulation is not meant to withstand extreme weather conditions without jacketing. While this new water resistant feature can be helpful during prolonged field installations, it is nevertheless recommended that an installer weatherproof and jacket the thermal insulation as soon as it is feasibly possible. Should water enter the system, the corrosion inhibitors will still activate to continue to help combat corrosion at a chemical level, and once the system reaches operating temperatures above 212°F/100°C the water will vaporize and leave the system.*