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## Technical Service Bulletin No. S-16-05

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### Cold Weather Waterproofing—Challenges & Solutions

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The feasibility of applying waterproofing coatings below temperatures of 40°F (4°C) is a common question. Tremco always recommends that these types of coatings be applied at or above this temperature whenever possible to ensure the ease of application, integrity, and effectiveness of the final installed product.

When applying cold fluid coatings in temperatures below 40°F (4°C), the field applicator may be faced with some of the following issues, compromising the integrity of the liquid membrane:

- High probability that the substrate has accumulated condensation, frost, or a thin film of ice—often times invisible to the naked eye.
- Slower cure times exhibited by the liquid membrane as the result of lower than optimal substrate and/or ambient temperatures.

**Never attempt to apply cold fluid applied coatings below 40°F (4°C) without first contacting your local Tremco Sales Representative and/or Tremco Technical Services!**

To address the challenges that low temperatures present when waterproofing, Tremco offers many excellent options, which include the following:

- **Paraseal®**—Paraseal products utilize HDPE and bentonite as waterproofing in an easy-to-install rolled sheet form. Because this solution does not require bonding or curing, it can be installed at any temperature. Care should be taken to avoid standing water and/or heavy rainfall during installation. For further information, please refer to <https://www.tremcosealants.com/products/paraseal.aspx>.
- **TREMproof 6100 & 6145®**—TREMproof 6100 & 6145 are hot-applied rubberized asphalt membranes that can be applied at lower temperatures, and are not affected by the cold-weather induced substrate integrity issues mentioned earlier in this bulletin. These products quickly cool into a monolithic film of rubberized asphalt, exhibiting superior waterproofing capabilities. For further information on TREMproof 6100, please refer to <https://www.tremcosealants.com/products/tremproof-6100.aspx>. For further information on

TREMproof 6145, please refer to <https://www.tremcosealants.com/products/tremproof-6145.aspx>.

- **TREMproof 545 & 560<sup>®</sup>**—These two offerings address most vertical work that needs waterproofed in cold-temperature application environments. At a composite thickness of 45-mils & 60-mils respectively, TREMproof 545 and 560 are double-scrim HDPE membranes with a special weave pattern that enhances abrasion resistance, thickness, flatness, and tear properties. These post-applied, self-adhered waterproofing membranes feature 20-mils of a high-performance butyl adhesive allowing cold-temperature application (down to 20°F/-6.6°C) in all weather conditions. For further information, please refer to [https://www.tremcosealants.com/products/tremproof-500-\(tremproof-545560\)-series.aspx](https://www.tremcosealants.com/products/tremproof-500-(tremproof-545560)-series.aspx).
- **TREMproof PUMA<sup>®</sup>**—For cold weather applications (down to 20°F/-6.6°C) that call for the waterproofing of horizontal surfaces, TREMproof PUMA should be used. This cold-applied liquid membrane utilizes polyurethane-methacrylate (“PUMA”) technology. This system offers superior elongation over traditional MMA/PMMA products and is composed of a primer (Tremco PUMA Primer), a base coat (Tremco PUMA BC or Tremco PUMA BC LM), and a top coat (Tremco PUMA TC); all system components are cured using Tremco PUMA Initiator. For further information, please refer to <https://www.tremcosealants.com/products/tremproof-puma.aspx>.
- **TREMproof PUMA Flashing System<sup>®</sup>**—For cold weather applications (down to 20°F/-6.6°C) that call for the waterproofing of flashing, TREMproof PUMA Flashing System should be used. This cold-applied liquid membrane utilizes polyurethane-methacrylate (“PUMA”) technology. This quick-cure, liquid-applied system cures within 30 minutes, even in temperature below freezing, and has tenacious adhesion to concrete and metal. TREMproof PUMA Flashing System is composed of a primer (Tremco PUMA Primer) and a UV stable base coat (Tremco PUMA Flashing). A top coat (Tremco PUMA TC) can be used when needed for aesthetic reasons. All system components are cured using Tremco PUMA Initiator. For further information, please refer to [https://www.tremcosealants.com/products/flashing-system-\(puma\).aspx](https://www.tremcosealants.com/products/flashing-system-(puma).aspx).

Through proper product selection and installation, the success of your project will be ensured. Your local Tremco Sales Representative and/or the Tremco Technical Services Group are always available to work with you to optimize a solution for most cold-weather waterproofing applications. For a look at Tremco’s entire portfolio of waterproofing systems please visit <https://www.tremcosealants.com/category/waterproofing-systems.aspx>.