

Frequently Asked Questions R-Tech® IV Environmental Cycling per ASTM C 1512

Q. What does this newly published information tell us?

A. When comparing Insufoam's R-Tech IV product to a Type IV XPS, the R-Tech's performance is similar to that of the XPS. Both products maintained their R-Values, compressive strengths and had minimal water absorption.

Q. What advantages does R-Tech IV have over a Type IV XPS?

- A. R-Tech IV comes in a wider variety of thicknesses and panel sizes. In addition, the R-Tech product comes with a polymeric film on both sides which provide the following benefits.
 - Additional jobsite durability less breakage and less waste
 - Allows the product to be provided with the InsulSnap[™] feature less material handling, less labor to install, less waste
 - When installed in a dead air space, the R-Tech can be supplied with a metallic-reflective facer which will provide enhanced R-Values
 - With thinner sizes, it's possible to wrap corners without breaking the product

Q. Now that I know this information, where can I use R-Tech IV?

- **A.** R-Tech IV can be used in any application where Type IV XPS has been used. It has already been used successfully in virtually every construction application. R-Tech IV can be used in below-grade, below-slab, cavity walls, interior walls, cold storage facilities and other construction applications.
- Q. I've seen other freeze-thaw results that were published by XPS manufacturers with substantially different results. Are these incorrect?
- A. You're likely talking about a foam-insulation comparison that was done using ASTM C 666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing. As the title indicates, the test method was designed for concrete and not foam insulations. Furthermore, as stated within the actual test method, it was not intended to "provide a quantitative measure of the length of service that may be expected from a specific type of concrete," let alone foam insulations, but is intended for "determining the effects of variations in the properties of concrete on the resistance of the concrete to the freezing-and-thawing cycles specified in the particular procedure." To use ASTM C 666 for foam insulation is not only incorrect but also misleading.

ASTM C1512 Standard Test Method for Characterizing the Effect of Exposure Environmental Cycling on Thermal Performance of Insulation Products was developed specifically for foam thermal insulations and attempts to replicate a real-world environment for typical construction applications.

