

TECHNICAL BULLETIN # 1023

SUBJECT: TENSILE AND SHEAR STRENGTH OF INSULFOAM EPS

DATE: DECEMBER 29, 2008 [Rev. November 1, 2012]

InsulFoam EPS is used in many applications where the Typical Physical Properties noted in ASTM C578 “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulations” or in InsulFoam EPS data sheets do not supply values that may be required for engineered OEM applications. Many of these OEM uses of InsulFoam EPS rely on the shear and tensile capabilities of InsulFoam EPS in their final design.

Insulfoam has conducted numerous tests of our InsulFoam EPS products produced at each facility to determine accurate Tensile and Shear strength values for our end users. These tests have been conducted following ASTM C273 “Standard Test Method for Shear Properties of Sandwich Core Materials” and ASTM C297 “Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions”. The following chart list the design values determined through this extensive testing:

| InsulFoam EPS Tensile and Shear Properties | | | | |
|---------------------------------------------------|------------------------|-----|----------------------|-----|
| | Tensile Strength, min. | | Shear Strength, min. | |
| | ASTM C297 | | ASTM C273 | |
| | psi | kPa | psi | kPa |
| InsulFoam I | 20.0 | 138 | 12.0 | 83 |
| InsulFoam VIII | 25.0 | 175 | 15.5 | 107 |
| InsulFoam II | 30.0 | 208 | 18.0 | 124 |
| InsulFoam IX | 40.0 | 276 | 24.0 | 176 |

If you have more questions pertaining to Insulfoam EPS products, contact the Insulfoam Technical Center at 800-469-8870.