

# Product Information Bulletin

BULLETIN NO.	257
ISSUED:	November 1, 2017
REPLACES:	October 17, 2017

## EnerSpan® 20 Insulation Board

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**EnerSpan® 20** insulation is a rigid, closed cell, silver-gray insulation with material properties that exceed requirements for expanded polystyrene (EPS) insulation manufactured to CAN/ULC-S701<sup>1</sup>, Type 2 and ASTM C578<sup>2</sup>, Type II. **EnerSpan 20** insulation is manufactured using **Neopor® F5300 Plus**, a graphite-enhanced expandable polystyrene (GPS) resin, provided by BASF.

The graphite within the silver-gray cellular structure of **EnerSpan 20** insulation reduces radiation heat transfer and results in an enhanced thermal resistance compared to standard white EPS insulation. **EnerSpan 20** insulation meets requirements for use as a component in BASF Corporation – Wall Systems: **Senerflex Platinum CI**, **Pebbletex Platinum CI** and **Acrotex Platinum CI** EIFS.

Material Property	Test Method	Units	Values
<b>Compressive Resistance</b> <i>Minimum @ 10% strain</i>	ASTM D1621	kPa (psi)	140 (20)
<b>Thermal Resistance</b> <sup>3</sup> <i>Minimum per 25 mm (1 inch) thickness</i>	ASTM C518	m <sup>2</sup> •°C/W (ft <sup>2</sup> •h•°F/BTU)	RSI-0.82 (R-4.7)
<b>Flexural Strength</b> <i>Minimum</i>	ASTM C203	kPa (psi)	276 (40)
<b>Water Vapour Permeance</b> <i>Maximum</i>	ASTM E96	ng/(Pa·s·m <sup>2</sup> ) (Perms)	200 (3.5)
<b>Water Absorption</b> <sup>4</sup> <i>Maximum</i>	ASTM D2842	% By volume	4.0
<b>Dimensional Stability</b> <i>Maximum, 7 Days @ 70 ± 2°C (158 ± 4°F)</i>	ASTM D2126	% Linear Change	1.5
<b>Limiting Oxygen Index</b> <i>Minimum</i>	ASTM D2863	%	24
<b>Surface Burning Characteristics</b> <i>Index (US)</i>	ASTM E84	Flame Spread	5
		Smoke Developed	25
<b>Surface Burning Characteristics</b> <i>Classification or Rating (CAN)</i>	CAN/ULC-S102.2	Flame Spread	220
		Smoke Developed	over 500

1. CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.**
2. ASTM C578, **Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.**
3. **EnerSpan 20** insulation thermal resistance values in the table above exceed minimum requirements for EPS insulation manufactured to CAN/ULC-S701, Type 2 and ASTM C578, Type II.
4. The water absorption laboratory test method involves complete submersion under a head of water for 96 hours. The water absorption value above is applicable to specific end-use design requirements only to the extent that the end-use conditions are similar to test method requirements.

## Handling, Storage and Installation Recommendations for *EnerSpan 20* Insulation

The following material handling, jobsite storage and installation recommendations have been provided by BASF for insulation material made from *Neopor*<sup>®</sup> *F5300 GPS Plus* graphite-enhanced expandable polystyrene (GPS) raw material.

### **Material Handling:**

Material handling and the flow of materials from manufacturing site to job site is a significant part of the construction process. Precautionary measures taken in packaging, storage, transportation and installation of insulation products made of *Neopor* can help minimize the potential for damage to the products.

### **Jobsite Storage:**

***Precautions taken when storing insulation products on the jobsite can help minimize the potential for damage. Keep product tarped or covered to protect from weather. Do not use clear plastic covering film. If possible, store indoors. Care should be taken to keep exposed foam protected from reflective sunlight or prolonged solar exposure.***

### **Installation:**

Precautions taken during the construction process can help minimize the potential for damage. Care should be taken to keep exposed foam protected from reflected sunlight or prolonged solar exposure. If deformation of the insulation product occurs due to excessive heat transferred from reflected and concentrated sunlight, remove the reflective surface or shield the insulation product.

A secondary method to protect the foam from direct sunlight and heat is to install sunscreen or tarp on the outside of the scaffolding, much the same that is used on building construction that protects the public when it is necessary for them to pass by construction site underneath the scaffolding. This is only needed until the finish coat of the foam is applied.

