

## INSULATION POWERED BY GRAPHITE

R-Shield® MAX 100 is a next generation insulation product line with a maximum R-value powered by graphite. R-Shield MAX 100 is a premium grade insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a high quality insulation.

**R-value** – R-Shield MAX 100 has a maximum R-value that never changes over time.

**Strength** – R-Shield MAX 100 comes in compressive strengths of 10 psi.

**Moisture Resistance** – R-Shield MAX 100 is a closed cell polystyrene insulation and is resistant to moisture gain.

**Vapor Permeable** – R-Shield MAX 100 allows moisture vapor to move through its structure.

**Drying Potential** – R-Shield MAX 100 rapidly releases absorbed moisture.

### Powered by Graphite

R-Shield MAX is comprised of many small pockets of air within a polymer matrix containing graphite. The graphite reflects radiant heat energy like a mirror, increasing the material's resistance to heat flow or R-value.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Perimeter/Underslab
- Drainage Board
- Waterproofing Protection


### Proven to meet, or exceed, building codes.

R-Shield MAX 100 is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01.



R-Shield MAX 100 meets Type IX of ASTM C578, “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation”.



			
R-value <sup>1</sup> , Thermal Resistance, ASTM C518	40°F	°F·ft <sup>2</sup> ·h/Btu (°K·m <sup>2</sup> /W)	5.2 (0.92)
	75°F	°F·ft <sup>2</sup> ·h/Btu (°K·m <sup>2</sup> /W)	5.0 (0.88)
Compressive Strength <sup>1,2</sup> @ 10% deformation, min. ASTM D1621		psi (kPa)	10 (69)
Density, Nominal ASTM C303		lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	1.0 (16)
Flexural Strength <sup>1</sup> , min. ASTM C203		psi (kPa)	25 (173)
Water Vapor Permeance <sup>1</sup> of 1.0 in. thickness, max., perm ASTM E96			5.0
Water Absorption <sup>3</sup> volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			I

<sup>1</sup> Please refer to ASTM C578 specification for complete information. R-values are based on 1-1/16" thickness.

<sup>2</sup> Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

<sup>3</sup> ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

### Product Protection.

R-Shield MAX can be damaged by prolonged direct sunlight exposure or by reflected sunlight. R-Shield MAX must be protected during storage, transportation, and at the project with a light colored opaque material. Please refer to the R-Shield MAX Handling Instructions.