



ALL-AMERICAN SUPPLY

*High-Tech Materials From The Outer Reaches
Of Space to the Depths of the Ocean*

Solar-Aero Space-Weapons-Nuclear
301 Eubank SE Albuquerque, NM 87123
(505) 299-7655 FX: (505)292-2495
Website: www.allamericansupply.com
Email: insulate@allamericansupply.com



85-RAM® HS PLASTIC

85-RAM® HS Plastic is a bauxite-based, air-setting, phos-bonded product with very high strength at low, intermediate and high temperatures. This high green strength version eliminates the need for forming where anchors are present except for flat arch construction.

TEMPERATURE CLASSIFICATION: 800-3000°F

MATERIAL REQUIRED PER CUBIC FOOT: 186 LBS.

PYROMETRIC CONE EQUIVALENT: 38+

ABRASION RESISTANCE: Less than 7.0cc

PHYSICAL PROPERTIES:

| Test Temp (°F) | Bulk Density(pcf) | Hot Modulus of Rupture (psi) | Cold Crushing Strength (psi) | Permanent* Linear Change (%) | Thermal ** Conductivity (Btu in./hr.sqft/°F) |
|----------------|-------------------|------------------------------|------------------------------|------------------------------|--|
| 230 | 177 | -- | 2000-2600 | -0.7 | 25.8 |
| 1000 | 175 | -- | 5000-5500 | -0.1 | 14.1 |
| 1500 | 175 | -- | 5000-10000 | -0.4 | 12.6 |
| 2000 | 175 | 750 | 9250-10250 | -0.2 | 11.9 |
| 2550 | 174 | -- | 9000-10000 | +0.1 | 12.1 |
| 2700 | -- | 100 | -- | -- | 12.8 |
| 3000 | 188 | -- | 14000-16000 | -1.5 | 15.9 |

*From 230°F

**Estimated

CHEMICAL ANALYSIS – CALCINED BASIS (Wt %):

| Al ₂ O ₃ | SiO ₂ | P ₂ O ₅ | TiO ₂ | MgO | Fe ₂ O ₃ | CaO | Other |
|--------------------------------|------------------|-------------------------------|------------------|-----|--------------------------------|-----|-------|
| 85.5 | 7.1 | 3.4 | 2.2 | 0.2 | 1.0 | 0.1 | 0.5 |

Manufactured by Vesuvius USA.