

# GREENTHERM 23 AM



## Product Data

10/18: 797C

Description: A 2300°F rated insulating firebrick, GREENTHERM 23 AM is suited for both backup lining behind dense bricks in all applications and hot-face lining in art glass, ceramic, and hobby kilns, petrochemical reforming and cracking furnaces, metal reheat and forge furnaces.

### Chemical Analysis: Approximate (Calcined Basis)

Silica (SiO <sub>2</sub> )	51.7%
Alumina (Al <sub>2</sub> O <sub>3</sub> )	39.4%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.6%
Titania (TiO <sub>2</sub> )	1.5%
Lime + Magnesia (CaO + MgO)	6.4%
Alkalies (Na <sub>2</sub> O + K <sub>2</sub> O)	0.4%

### Physical Data (Typical)

Temperature Use Limit	
Normal Oxidizing Atmosphere	2300°F (1260°C)
Density	37.5 lb/ft <sup>3</sup> (0.60 g/cm <sup>3</sup> )
Modulus of Rupture	102 lb/in. <sup>2</sup> (0.7 MPa)
Cold Crushing Strength	130 lb/in. <sup>2</sup> (0.9 MPa)
Permanent Linear Change	
At 2250°F (1232°C)	0.0
Apparent Porosity	76.8%
Thermal Conductivity	Btu · in/hr · ft <sup>2</sup> · °F (W/m · °C)
At 500°F (260°C)	1.0 (0.14)
At 1000°F (538°C)	1.3 (0.19)
At 1500°F (816°C)	1.6 (0.23)
At 2000°F (1093°C)	1.8 (0.26)
Reversible Linear Thermal Expansion	
At 2000°F (1093°C)	0.6%
Hot Load Strength	
10 psi load for 1 ½ hours, Deformation	
At 2000°F (1093°C)	0%

Note: This product is manufactured for HarbisonWalker International by a third party. The results reported herein have been supplied by the third-party manufacture. The above data are reported as typical properties and should not be taken as establishing maximum or minimum specifications. The above data is not intended as a warranty of any kind.