



# PRODUCT DATA

**Brand Name:**

**PERMANENTE® 98 AF**

**Description:**

PERMANENTE® 98-AF is a high purity magnesite-based, basic castable with a unique, non-chromate bonding system and can be installed by vibration casting or ramming methods, to maximize properties. PERMANENTE® 98-AF provides excellent densities plus resistance to basic slags. It also possesses excellent refractoriness and volume stability.

Physical properties shown are average values of samples taken under controlled conditions  
ASTM test methods used where applicable

**Typical Water Required for Mixing (by weight) :**

Vibration Casting ..... 6.4%  
Ram Casting ..... 2.8%

**Bulk Density (pcf)**

After Drying to 300°F (150°C)

**Cast Data**

163 (2.61 g/cm<sup>3</sup>)

**Cold Crushing Strength (psi)**

After Drying to 300°F (150°C)

3200 (224 kg/cm<sup>2</sup>)

**Permanent Linear Change (%)**

After 3000°F (1650°C)

-0.2

**Typical Chemical Analysis (%)**

(Calcined Basis)

Magnesia (MgO) .....	96.0
Silica (SiO <sub>2</sub> ) .....	1.5
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	0.6
Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	0.4
Lime (CaO) .....	1.5

**Standard Packaging:** 55 lb bag. 72 bags per pallet. Bulk packaging available.

Brand Code: 1016

The properties shown on this data sheet represent typical average results using standard ASTM test methods (unless otherwise noted) conducted under controlled condition (using standard rectangular shapes), and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges, and Resco Products, Inc. reserves the right to modify the properties and specifications at any time without prior notice.

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