



# PRODUCT DATA

**Brand Name:** RESCORAM 70SC

**Description:** RESCORAM 70 SC is a 70% silicon carbide, phosphate-bonded plastic material that is used throughout the metals, power, cement, and lime producing industries. Its chemical bond develops high strength at lower temperatures. This property makes it ideal for application where there is insufficient heat to develop the ceramic bond required in heat-setting plastics.

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

**Maximum Service Temperature: 2900°F (1593°C)**

<u>Bulk Density (pcf)</u>	<u>Ramming Data</u>	
	As Received	
	165	(2.64 g/cm <sup>3</sup> )
<u>Cold Crushing Strength (psi)</u>		
After 1500°F (815°C)	3850	(270 kg/cm <sup>2</sup> )
After 2500°F (1370°C)	5000	(350 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	6050	(424 kg/cm <sup>2</sup> )
<u>Modulus of Rupture (psi)</u>		
After 1500°F (815°C)	1750	(123 kg/cm <sup>2</sup> )
After 2500°F (1370°C)	1800	(126 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	2100	(147 kg/cm <sup>2</sup> )
<u>Thermal Conductivity (K Factor)</u>		
Mean Temperature	<u>BTU/ft<sup>2</sup>/hr./°F/inch</u>	<u>W/mK</u>
1500°F (815°C)	60	8.65
2000°F (1093°C)	79	11.39
<u>Permanent Linear Change (%)</u>		
After 1500°F (815°C)	-0.3 to -0.1	
After 2500°F (1370°C)	-0.1 to +0.2	
After 2800°F (1538°C)	-0.4 to -0.1	
<u>Abrasion Loss (using ASTM C-704 Method)</u>		
After 1500°F (815°C)	Less than 12 cc	
<u>Typical Chemical Analysis (%)</u>		
(Calcined Basis)		
Silicon Carbide (SiC) .....	69.5	
Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	21.4	
Silica (SiO <sub>2</sub> ) .....	5.1	
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	0.2	
Lime (CaO) .....	0.1	
Magnesia (MgO) .....	0.2	
Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> ) .....	3.4	
Alkalies (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.2	

**Standard Packaging:** 55 lb carton. 64 cartons per pallet

Brand Code: 0702

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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