

# Technical Data Sheet

# Ceramite<sup>®</sup> BKR

## Superior Performance in Wear Resistant Applications

### Chemical analysis (%) :

Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	CaO	Fe <sub>2</sub> O <sub>3</sub>
79	12	7	1

**Maximum service temperature:** 2192°F (1200°C)

**Maximum grain size:** 0.20" (5 mm)

**Density:**  
after curing 68°F (20°C) 174.8 lbs./cu.ft. (2.8 kg/dm<sup>3</sup>)  
after firing 1562°F (850°C) 168.6 lbs./cu.ft. (2.7 kg/dm<sup>3</sup>)

**Linear thermal expansion:** 68°F – 1562°F (20°C – 850°C) 0.6% / 7.4·10<sup>-6</sup>/°C

**Permanent linear change:** 68°F – 1562°F (20°C – 850°C) -0.3%

**Thermal conductivity:<sup>1</sup>**  
572°F (300°C) 11.79 BTU-in/hr-ft<sup>2</sup>-°F (1.7 W/m·K)  
1112°F (600°C) 12.48 BTU-in/hr-ft<sup>2</sup>-°F (1.8 W/m·K)  
1652°F (900°C) 14.56 BTU-in/hr-ft<sup>2</sup>-°F (2.1 W/m·K)

Temperature	68°F (20°C)	932°F (500°C)	1562°F (850°C)	1832°F (1000°C)	2192°F (1200°C)
<b>Cold compressive strength<sup>2</sup></b>	24,656 psi (170 MPa)	29,008 psi (200 MPa)	20,305 psi (140 MPa)	20,305 psi (140 MPa)	14,504 psi (100 MPa)
<b>Cold flexural strength<sup>3</sup></b>	2,466 psi (17 MPa)	3,336 psi (23 MPa)	1,885 psi (13 MPa)	2,901 psi (20 MPa)	1,740 psi (12 MPa)
<b>Abrasion test<sup>4</sup></b>	0.043" (1.1 mm)	0.035" (0.9 mm)			
<b>Hot modulus of rupture</b>				2,176 psi (15 MPa)	

**Water addition:** 5.2 – 6.0 weight %

**Installation:** Vibration

**Packing:** 55 lbs. or 440 lbs. (25 kg or 200 kg)

**Shelf life:<sup>5</sup>** 6 months

All data are average numbers and are not to be considered as specifications.

<sup>1</sup>ISO 88941

<sup>2</sup>ASTM C349, The sample is pre-fired at given temperature.

<sup>3</sup>ASTM C348, The sample is pre-fired at given temperature.

<sup>4</sup>DIN 52108, The sample is pre-fired at given temperature.

<sup>5</sup>Ceramite is to be stored in dry conditions, off the ground. In this case, it will retain its properties for at least 6 months. In many cases, experience has demonstrated that properties are retained for more than a year.