

Technical Data Sheet

Ceramite[®] BCR

Superior Performance in Wear Resistant Applications

Chemical analysis (%) :

SiC	Al ₂ O ₃	SiO ₂	CaO	Fe ₂ O ₃
14	66	11	7	0.8

Maximum service temperature: 1832°F (1000°C)

Maximum grain size: 0.20" (5 mm)

Density:
after curing 68°F (20°C) 174.8 lbs./cu.ft. (2.8 kg/dm³)
after firing 1562°F (850°C) 162.3 lbs./cu.ft. (2.6 kg/dm³)

Linear thermal expansion: 68°F – 1562°F (20°C – 850°C) 0.5% / 6.0·10⁻⁶/°C

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

Thermal conductivity:¹
572°F (300°C) 19.41 BTU-in/hr-ft²-°F (2.8 W/m·K)
1112°F (600°C) 18.03 BTU-in/hr-ft²-°F (2.6 W/m·K)
1652°F (900°C) 18.72 BTU-in/hr-ft²-°F (2.7 W/m·K)

Temperature	68°F (20°C)	932°F (500°C)	1562°F (850°C)	1832°F (1000°C)
Cold compressive strength²	23,931 psi (165 MPa)	29,008 psi (200 MPa)	18,855 psi (130 MPa)	18,855 psi (130 MPa)
Cold flexural strength³	2,466 psi (17 MPa)	2,321 psi (16 MPa)	1,595 psi (11 MPa)	1,305 psi (9 MPa)
Abrasion test⁴	0.01" (0.3 mm)	0.01" (0.3 mm)		
Hot modulus of rupture				1,450 psi (10 MPa)

Water addition: 5.2 – 6.0 weight %

Installation: Vibration

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

Shelf life:⁵ 6 months

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

¹ISO 88941

²ASTM C349, The sample is pre-fired at given temperature.

³ASTM C348, The sample is pre-fired at given temperature.

⁴DIN 52108, The sample is pre-fired at given temperature.

⁵Ceramite 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.

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