Typical Data Properties		SPECIAL GRADES C-22 Z	BNZ-24	BNZ-25	BNZ-26 HS
Temperature Use Limit	°F	2300	2400	2500	2600
(Normal oxidizing atmosphere)	°C	1260	1316	1371	1427
Density, Avg.	lb/ft³	46	37	45	57
ASTM C 134	kg/m³	737	593	721	913
	lb/BEq	2.7	2.2	2.6	3.3
	kg/str.	1.2	1.0	1.2	1.5
Modulus of Rupture	lb/in²	210	120	150	360
ASTM C 133	MPa	1.4	0.8	1.0	2.5
	kg/cm²	14.8	8.5	10.6	25.4
Cold Crushing of Strength	lb/in²	320	130	260	580
ASTM C 133	MPa	2.2	0.9	1.8	4.0
	kg/cm²	22.5	9.2	18.3	40.8
Permanent Linear Change	%				
ASTM C 210					
24 hrs at soaking temp: °F *(°C)*					
2250 (1232)		0.0	-	-	-
2350 (1290)		-	-0.4	-	-
2450 (1343)		-	-	-0.4	-
2550 (1399)		-	-	-	-0.7
2750 (1510)		-	-	-	-
2800 (1538)		-	-	-	-
2950 (1621)		-	-	-	-
3150 (1732)		-	-	-	-
Reversible Linear Thermal Expansion	%				
at 2000°F (1093°C)		0.5	0.6	0.6	0.6
Hot Load Strength	%				
ASTM C 16	deformation				
10 psi load for 11/2 hours: °F *(°C)*					
2000 (1093)		0.1	0	-	-
2200 (1204)		-	-	0.3	0.1
2400 (1316)		-	-	-	-
Thermal Conductivity	Btu-in/ft², *hr*, °F				
ASTM C 182	(W/mk)				
Mean temperature, °F *(°C)*					
500		1.5	0.9	1.8	1.9
(260)		0.22	0.13	0.26	0.27
1000		1.8	1.1	2.1	2.2
(538)		0.26	0.16	0.30	0.32
1500		2.2	1.4	2.5	2.5
(816)		0.32	0.20	0.36	0.36
2000		2.5	1.6	2.8	2.8
(1093)		0.36	0.23	0.40	0.40
To convert Btu-in/ft², *hr*, °F to Kcal-m², *hr*, °C, *multiply by 0.124.*					
Chemical Analysis					
Alumina – Al_2O_3		35	40.0	34.0	44.7
Silica – SiO2		60.1	47.2	63.0	49.9
Ferric Oxide – Fe_2O_3		1.1	0.5	0.7	0.6
Titanium Oxide – Ti_2O_2		1.3	1.5	1.4	1.6
Calcium Oxide – CaO		2.1	10.3	0.3	0.6
Magnesium Oxide – MgO		0.0	0.2	0.1	0.1
Alkalies, as Na_2O & K_2O		0.4	0.3	0.5	2.5

*ASTM C 113