

## VIBROCAST 45ALR

VIBROCAST 45ALR IS A LOW CEMENT CASTABLE WHICH IS IDEALLY GRAIN SIZED TO GIVE MINIMUM POROSITY AND LINEAR CHANGE WITH MAXIMUM DENSITY AND HIGH FIRED STRENGTHS. IT IS DESIGNED SPECIFICALLY TO RESIST THE PENETRATION OF MOLTON AL AND ITS ALLOYS. IT IS PARTICULARLY EASY TO INSTALL, IS TOLERANT TO MIXING WATER FLUCTUATIONS AND FLOWS READILY WITH MINIMUM VIBRATION.

**MAXIMUM SERVICE TEMPERATURE (M.S.T.)** (1400°C)

**BULK DENSITY**

@ 110°C	150 - 156	LBS/FT <sup>3</sup>	2400 - 2500	KG/M <sup>3</sup>
@ 815°C	147 - 153	LBS/FT <sup>3</sup>	2350 - 2450	KG/M <sup>3</sup>

**COLD CRUSHING STRENGTH**

@ 815°C	8000 - 12000	P.S.I.	562 - 844	KG/CM <sup>2</sup>
@ 1370°C	10000 - 15000	P.S.I.	703 - 1054	KG/CM <sup>2</sup>

**COLD MODULUS OF RUPTURE**

@ 815°C	1200 - 1700	P.S.I.	84 - 120	KG/CM <sup>2</sup>
@ 1370°C	1500 - 2000	P.S.I.	105 - 140	KG/CM <sup>2</sup>

**PERMANENT LINEAR CHANGE**

@ 815°C	0.00 TO - 0.30 %
@ 1370°C	0.00 TO + 0.30 %

**EROSION LOSS (ASTM C-704)** LESS THAN 9.0 CC

**POROSITY** @ 815°C 18 %

**CONDUCTIVITY OR "K" FACTOR**

	<u>BTU/FT<sup>2</sup>/HR/°F/IN</u>	<u>W/mK</u>
1000°F (540°C)	9.00	1.26
1500°F (815°C)	10.00	1.43
2000°F (1095°C)	10.00	1.43

**TYPICAL CHEMICAL ANALYSIS (%)**

AL <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	TiO <sub>2</sub>	Alk
45.6	43.9	1.0	2.4	0.8	0.7

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