



PYROCAST B80 AL

HIGH STRENGTH, NON-WETTING ALUMINA-BASED REFRACTORY FOR SEVERE APPLICATIONS

Pyrocast B80 AL is a high alumina castable with excellent chemical and mechanical resistance. The refractory has excellent abrasion resistance, high corrosion resistance and high mechanical strength even after high temperature exposures or firings.

COMPOSITION

Material	Approximate Percentage of Weight
Al ₂ O ₃	74.5%
SiO ₂	13.1%
CaO	4.3%
TiO ₂	2.4%
Other	5.7%

BENEFITS

- Excellent abrasion resistance
- Long service life in severe applications
- Less maintenance
- Less cracking at high temperatures
- Easy removal of frozen aluminium

APPLICATIONS

- Charge troughs or furnace chutes
- Furnace door surrounds
- Ladle impact tiles
- Ladle liners
- Crucible side wall linings
- Tap hole blocks
- Tapping troughs
- Transfer troughs

PHYSICAL PROPERTIES

Property	Value
Maximum Service Temperature	1200°C (2192°F)
Permanent Linear Change–Shrinkage	-0.5%
Density–g/cm ³ (lb/in ³)	2.77 (0.10)
Cold Modulus of Rupture–MPa (psi)	35 (5076.32)
Hot Modulus of Rupture–MPa (psi)	37 (5366.40)
Cold Crushing Strength–MPa (psi)	186 (26,977)
Corrosion Resistance	Good to moderate
Abrasion Resistance–cm ³ (in ³)	1.3 (0.080)
Thermal Conductivity–W/m·K (BTU·in/ft ² ·hr·°F)	
at 165°C (329°F)	0.948 (6.58)
at 326°C (619°F)	1.190 (8.26)
at 493°C (919°F)	1.452 (10.10)
at 634°C (1173°F)	1.674 (11.60)
at 703°C (1297°F)	1.788 (12.40)

HEALTH AND SAFETY

Prior to use, refer to the product safety data sheet for proper handling and required personal protective equipment.

