

## Refractory Cement and High Purity Binder

Product	Refractoriness		Cold Crushing Strength*			Specific surface area	Specific gravity	Setting time		Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	CaO	Fe <sub>2</sub> O <sub>3</sub>	MgO	Mineralogical Composition	
	Orton Cone	°C	kg/cm <sup>2</sup>			cm <sup>2</sup> /gm	gm/cm <sup>3</sup>	minutes		%	%	%	%	%	Principal phases	Secondary phases
			After 6 hrs.	After 1 day	After 1 day+ 1 day at 100°C			Initial	Final							
HYBOND 75	31	1683	125	350	500	4000	2.90-2.95	40	400	70.0	0.7	23.6	0.3	0.8	Ca, Ca <sub>2</sub>	C <sub>12</sub> A <sub>7</sub> , Alumina
HYBOND SUPER	34	1763	20	150	400	4500	3.10-3.20	30	300	78.0	0.5	18.5	0.3	-	Ca, Ca <sub>2</sub> , α-Alumina	C <sub>12</sub> A <sub>7</sub>
LUMICEM	13-14	1349-1398	150	400	450 (after 3 days)	3000	-	30	400	48.0	4.0	35.0	5.0	0.9	Ca	C <sub>12</sub> A <sub>7</sub> , C <sub>2</sub> A <sub>5</sub> , CT

\* 1:3 vibrated mortar using standard graded sand

Lumicem is a High Alumina Refractory Binder that sets hydraulically and with refractory aggregates, provides a superior refractory castable. Lumicem contains more than 45% Alumina and exhibits excellent setting behaviour. Comparatively lower level of iron makes Lumicem a binder with refractoriness of over 1380°C. The castable made using Lumicem develops high crushing strength and abrasion resistance. Lumicem is equivalent to Calandum, Cement Fondu, Luminite, Istra and other Alumina refractory binders available in the market internationally.

A quality assurance plan has been implemented with stringent quality parameters covering the entire process which also conforms and is certified to the international quality standard ISO 9001:2000

The above data constitutes average results of current production test values