Refractaria S.A.U.— CLEANCAST®

Our patented refractory system CLEANCAST® minimize wearing, eliminating refractory inclusions taken by the steel stream into the ingots, achieving a cleaner steel thanks to:

- Preventing the slag generated during casting from reaching the mould
- Minimizing the dragging of the refractory pipes
- Reducing the oxidation phenomenon while steel driving and entering the mould
- Reducing air inclusion inside refractory channels
- Innovative low porosity refractory without Clay and CaO content

Fig.1 Ingot casting-infographic

Table1 Quality table for Ingot casting

	Main raw material	Al2O3	SiO2	Fe2O3	BD (g/cm3)	Open Porosity (%)
SICAL 45-PLC	Fireclay	42-45	47-50	1,0-1,3	2,15-2,25	18-21
ANDAL 50/PLC	Andalusite	50-53	43-46	0,9-1,1	2,40-2,50	17-20
ANDAL 60/PLC		59-61	35-37	0,8-1,0	2,45-2,55	15-18
BERAL 60/PLC	Bauxite	59-61	33-35	1,4-1,6	2,35-2,45	19-22
BERAL 80/PLC		79-82	1,7-2,2	1,7-2,2	2,54-2,59	19-23
TABAL 90/PLC	Tab. Alumina	89-92	0,2-0,4	0,2-0,4	2,85-2,90	17-20
Pre-cast						
VERCAST N65S	Andalusite	64-66	32-34	0,7-0,8	2,54-2,56	15-17
VERCAST B85KGR	Bauxite	85-87	10-12	0,8-1,0	2,90-2,95	16-18
VERCAST N95A	Tab. Alumina	95-97	2,4	0,03-0,08	3,00-3,10	14-17

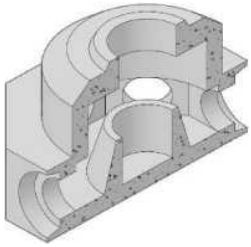

Fig.2 Cross-section of CLEANCAST®

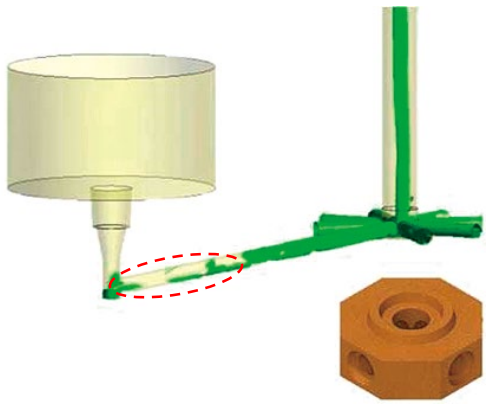

Fig.3 Competitor's Bottom Pouring Set-up

Critical wear such as showed on picture below (Fig.4) increase inclusion taken by steel stream, reducing steel quality with turbulences in the mass flow.

Fig.4 Conventional product made by bauxite

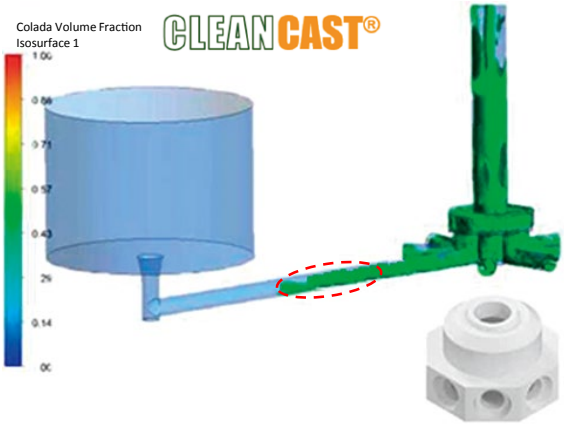

Fig.5 Refractaria's Bottom Pouring Set-up

Thanks to the Cleancast Design, speed and turbulences are decreased, the mass flow is constant and provides better steel quality. Our Andal 60/PLC does not interact with steel stream, minimizing the amount of refractory inclusions in the Ingot.

Fig.6 Refractaria's Andal 60/PLC