

CEMENT & LIME

The increasing use of Alternate Fuels has placed increasing demands on refractory materials across the industry, with the type of fuel & contaminants playing a critical role in the outright material performance

Customer Requirements

Customer in India approached Vesuvius team with issue with plastic based alternative fuels causing low service life in the lower sections of the kiln, specifically around the kiln Inlet and the Smoke chamber.



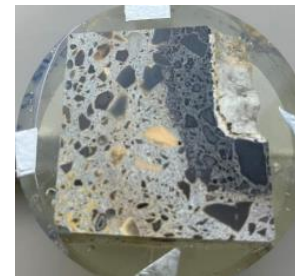
Process was 10,000 TPD kiln with AFR load of 15%. Current materials were designed for high alkali loads & build up resistance featuring 30% Silicon Carbide. Request was for the Vesuvius team to supply a material capable of more than the 3-7 months life they were achieving and return to a greater than 12 month campaign.

Vesuvius Recommendations

Vesuvius R&D center of excellence in Vizag India, developed a new self levelling material **SURCAST FLO 620ZX** designed specifically to resist contaminants found in plastic based alternate fuels, featuring:

- Superb installation characteristics
- Alkali & Corrosion resistance
- Thermal shock resistance.
- Abrasion resistance

First trials were installed in the kiln inlet with subsequent trials in the smoke chamber.



Polished cross section
Alkali / Sulphate / Chlorine reagents at 1100°C / 5hrs

Customer Impact

Customer life in the application was extended significantly to 18 months with corresponding decrease in downtime and lost productivity.

- Reduced overall cost of ownership
- Reduced downtime for mid term repairs on the critical area
- Able to increase usage of alternative fuels to maximize additional cost savings

Customer expanded **SURCAST FLO 620ZX** into additional plants across their network.

