Advanced Technical Vision

in steel industry
Steel Ladle

Seven's aim in ladle lining:

- Develop advanced monolithic products and services
- Supply solutions according to customer requirements
- Achieve top performance levels
- Ensure cost effective results

Steel cleanliness is safeguarded by high alumina-spinel products

Fully integrated monolithic solutions have been engineered for any steel ladle lining:

- Low and ultra-low cement castable
- Precast pieces ready for use
- Ramming, gunning and shotcrete mixes
  produced with selected and high grade raw materials.
All products manufactured by Seven Refractories are designed in compliance with EC legislation in terms of health and safety, as well as emission and wastage impact.

Seven Refractories contributes to minimizing costs by lowering the specific consumption and by extending the service life of the ladles.
Seven Refractories provides castables and precasted solutions for iron and steel treatment as well as for all the secondary metallurgy devices.

High performance products are engineered for

- Chemical attack resistance
- Abrasion resistance
- High mechanical properties
- Thermal shock resistance
- Compatibility with repairs

Quality zoning lances are designed to contrast the different wear factors.
Among the several items influencing the efficiency and the productivity of any steel mill, surely the delta roof plays a significant role.

Advanced ultra-low cement product and high alumina base provide precasted blocks or casted in situ solutions for any suspended roof.
Monolithic safety lining, basic spray for working lining, and precasted shaped pieces can be manufactured in different quality grades to match different Client demands.

Seven Refractories supplies products able to:

- ensure uniformity of the steel temperature
- control turbolences and steel flow
- ensure safety of the linings during long casting sequences

The tundish is the crucial final vessel where steel cleanness must be ensured.
**Services Provided**

- Preliminary study and investigation for the project edition
- Design and architecture, bill of materials, thermal calculation
- Full range of products for lining and maintenance
  - Regular, low, ultra-low and no-cement castable
  - Regular and dense low-cement gunning mix
  - Ramming
  - Shotcreting
  - Grouting, patching and dry vibrating products
- Supply of mixer, gunning machines, pump, etc.
- Training on mixing, gunning and maintenance techniques
- Training on equipment usage
- Supervision and monitoring by experienced technicians
- Global Research & Development
- Monitoring and targeting of results
- Technical advice from experts

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