



ADVANCED REFRACTORY SOLUTIONS

Flextrong Applications

STEEL

BLAST FURNACE

- Runner covers
- Protection shields
- Torpedo ladle spouts
- Cast-iron ladle spouts

STEEL PLANT

- Steel ladle slide gate shield
- Skim tools blades
- Converter charging / dumping throats
- Steel ladle lip-rings, spouts, and skim sectors
- Ladle and tundish fume hoods, covers and pre-heaters

HEAT TREATMENT

- Rolling mill delay tables
- Saddles and charge bearings
- Doors, sills, jambs and lintels for heating and treatment furnaces
- Damper valves

ALUMINIUM AND NON FERROUS

- Crucible bottom for the primary Aluminium drawing
- Tools for skimming, stirring and additions
- Thermocouples and insulating protection tubes
- Doors, sills, jambs and lintels
- Impellers and pumps
- Die-casting bale out ladles – filling hoppers
- Troughs

FERRO ALLOYS

- Minerals feeders
- Ladle spouts

LIME AND CEMENT

- Retainer rings
- Tire feeders
- Kiln feed end plates
- Elevators
- Nose rings
- Damper valves
- Cooler bull nose and walls

Sede Legale/Operativa - Headquarters:
Via Brallo, 2 - 27010 Siziano (PV)
tel. +39 0382.66711 - fax +39 0382.6671492
info@erediscabini.com

Sede Produttiva/Magazzino - Production/Storage:
Via Meucci, 15 - 20080 Casarile (MI)

Dedicated research for each project

Eredi Scabini has always been sensitive to the needs of the customer and our competence makes us aware that each project present unique and distinctive characteristics and problems. For this reason, our firm possesses organized resources to manage each project individually, not offering standard solutions, but working from the ground up on every request to guarantee ad hoc responses which, together with the unique quality of our product, offer results which are twice as effective.

Applicational standards

- The Flextrong® range of products can either be used in non-continuous processes with temperatures up to 1650°C or in continuous processes with temperatures up to 1100°C (Flextrong®) or 1370°C (Flextrong® HT)
- Suitable for and resistant to molten metals contact
- Resistant to direct flames, even if oxidising
- Ready for use and can be bolted to existing metallic structures
- Flextrong® can be used as an alternative to traditional refractories
- Flextrong® can be used as an alternative to heat resistant castings
- Density and thermal conductivity similar to traditional refractories

Saddles



Delay tables



Shaft furnace impact plates



Door



Tundish cover



Heart



Door frame



Lip ring 1



Lip ring 2



Trough 1



Trough 2



Skim tool blade



Door 1



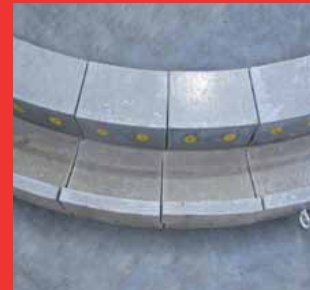
Door 2



Door 3



Nose ring



Damper



Blaster Nozzle



Eredi Scabini is pleased to present Flextrong®, the new product line born out of our company's experience and innovative spirit.

Flextrong® is a preformed ceramic matrix composite reinforced with heat resistant steel.

The **metallic fibres** which reaches up to 10 times higher density than the market average thanks to the manufacturing process, **combined with the ceramic part**, finalised to bind and protect the metallic fibres, make up a **perfectly balanced product between ductility, hardness and refractoriness**. It is just this balance which gives Flextrong® the advantage: the metal ductility combine with the ceramic hardness and refractoriness to provide a more effective material with all of the performance of metals plus that of traditional refractories.

The composition of the product, the special manufacturing process and the possibility to orient the metal fibers according to specific

applications guarantee surprising and uniquely quality results which set a new standard for excellence.

The complete range is adaptable to any need in terms of quality both of the matrix and the reinforcement in order to guarantee the most customisable response possible.

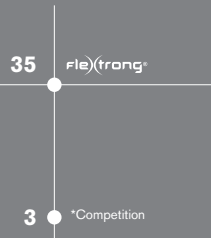
Flextrong® HT

Flextrong® HT is an evolution of Flextrong®, using a new combination of ceramic matrix and metal reinforcement. The new formulation is intended for applications that require greater resistance to mechanical stresses at high temperatures, even in oxidizing atmospheres.

A cocktail of quality to guarantee maximum resistance...

...to thermal shock.

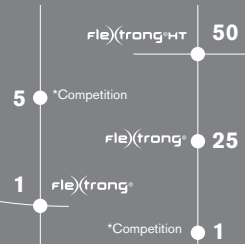
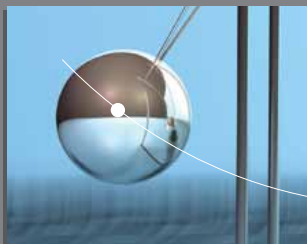
Modulus of rupture [MPa] after 15 thermal cycles



Thanks to the higher percentage of metallic fibers, Flextrong® products does not fear drastic temperature changes and mechanical impacts which trigger devastating micro-cracks in the competitions' products.

...to impact.

Micro-cracks propagation index



...to fracture.



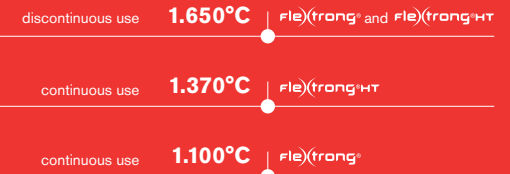
Fracture toughness index

*ULCC with 5% steel fibres addition in weight

...to oxidation at high temperatures.

fle)(trong® and fle)(trong®HT

Oxidation ages materials making them fragile and less efficient, but the innovative ceramic matrix protects Flextrong® even at the highest temperatures, guaranteeing long life.



...to molten metals.

fle)(trong® and fle)(trong®HT

The use of selected raw materials and specific additives determines Flextrong®'s ability to resist and respond positively even in the most extreme conditions to the point of coming in contact with molten metals.

