# NORPHOS<sup>™</sup>

STEEL DEPHOSPORIZATION IN CORELESS INDUCTION FURNACE



# TOTAL SOLUTION

NorPhos<sup>™</sup>, the patent technology, is a simple refractory solution that enables every steel producer with coreless induction furnace to produce low phosphorous steel with no CAPEX & no change in raw materials used.

## VALUE PROPOSITIONS



Comply with IS 1786 (P level for construction steel)







**PERFORMANCE CERAMICS & REFRACTORIES** 

# TYPICAL EQUIPMENT: CORELESS INDUCTION FURNACE

Our customized NorPhos<sup>™</sup> solution for dephos is encompassed with lining, flux and engineering support that can be used directly in coreless induction furnace to satisfy individual operation requirement. This operating procedure adapts to each users' specific operation conditions help to run dephos process efficiently.

# PERFORMANCE IN DEPHOS CONDITIONS



#### Flux NorFlux F 150

NorFlux F 150 Dephos flux is reducing highly efficient the phosphor content to provide excellent quality steel.

Lining material NorVibe A 150

The specially designed refractory lining material NorVibe A 150 is withstanding both, chemical attack during melting and Dephos operations.

	Physical properties							Chemical properties			
	Grain Size	Dried Density (Rammed)	Maturing Temperature	Maximum Use Temperature	Melting Temperature	Loss on ignition @ 1000	Texture	Al <sub>2</sub> O <sub>3</sub>	CaO	SiO <sub>2</sub>	Other oxides
NorVibe A 150	5 mm	2.90-3.00 g/cm <sup>3</sup>	1370°C	1800°C	-	-	-	87-88%	-	-	12-13%
NorFlux F 150	0 - 1 mm	-	-	-	<1450°C	<20 wt%	Powder, white	12-18 wt%	36-45 wt%	12-18 wt%	<10 wt%

## **Process operation**

Saint-Gobain provides for each user highly adapted process operation recommendations to optimize technical, qualitative and economic advantage of the Dephos process.

#### Leverage Our Expertise

Saint-Gobain Performance Ceramics & Refractories engineers and researchers collaborate with you, our customers, to solve operational challenges with steel dephos in corless induction furnace.

## For more information: Ceramics.refractories@saint-gobain.com www.ceramicsrefractories.saint-gobain.com

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