REFRACTORY TOP & BOTTOM BLOCK

TECHNICAL DATA SHEET | INDUCTION MELTING FURNACE

Electro Power Enterprise Refractory Top & Bottom Blocks are refractory components for induction melting furnace applications. They are manufactured from 45% alumina low-cement castable and processed using controlled mixing, vibration, curing and heating procedures. Blocks can be manufactured according to customer drawings and furnace requirements.

1. PRODUCT SPECIFICATION

Parameter	Specification
Product	Induction Furnace Refractory Top & Bottom Block
Application	Induction Melting Furnace
Material	45% Alumina Low-Cement Castable
Alumina Content	45%
Type	Refractory Top & Bottom Block
Manufacturing Process	Cast / Vibrated Refractory Construction
Mixing Equipment	Pan-Type Mixer
Mixing Medium	Cold Water
Compaction Method	Vibration
Shape & Dimensions	As per customer drawing / furnace requirement
Custom Manufacturing	Available

2. TECHNICAL DATA

Parameter	Value / Information
Thermal Expansion	Approx. 0.55% at 1000°C
CCS	Approx. 1050 kg/cm² at 1500°C
Strength Information	More than 3% CS used for better strength
Curing / Heating	Up to 800°C
Heating Cycle	Approximately 48 hours slow cycle
Heat Treatment	Heat-treatment furnace

3. MANUFACTURING PROCESS

Raw Material Selection → Pan-Type Mixing → Addition of Cold Water → Mould Filling → Vibration → Curing → Slow Heating → Heat Treatment → Dimensional Inspection

4. VIBRATION, CURING & HEAT TREATMENT

A controlled vibration process is used during manufacturing to achieve better compactness. The blocks undergo curing followed by a slow heating cycle up to approximately 800°C over 48 hours and subsequent heat treatment in a furnace.

5. APPLICATIONS

- Induction Melting Furnaces
- Steel Melting Furnaces
- Cast Iron Melting Furnaces
- Non-Ferrous Metal Melting Furnaces
- Foundry Furnace Refractory Replacement
- Furnace Maintenance & Rebuilding

6. CUSTOM MANUFACTURING

Custom sizes, shapes and configurations are available as per customer drawing or furnace requirement. Custom internal diameter, outside dimensions, thickness, bolt-hole patterns and split-type blocks can be manufactured subject to drawing and application requirements.

7. OEM COMPATIBILITY

Suitable for **Electrotherm, Inductotherm, Megatherm, ABP, Superheat and other OEM induction furnace systems**, subject to dimensional and application requirements.

Note: Brand names are mentioned for identification and compatibility reference purposes only and do not imply any affiliation, authorization or endorsement by the respective OEMs.

Technical Note: The values in this datasheet are based on the technical information provided in the supplied Electro Power Enterprise product brochure. Actual refractory performance may depend on castable formulation, curing, heat treatment, installation and furnace operating conditions.

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