



ABC METALLURGICALS LTD

Authorized Distributor for Allied Refractory Products



PRODUCT SELECTION GUIDE

FOR CORELESS INDUCTION
FURNACES, LADLES &
REVERBATORY FURNACES

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WHY BUY FROM ABC METALLURGICALS LIMITED?

- Authorized distributor for Allied Refractory Products
- Local stock availability – reduced downtime
- Technical installation support, not just sales
- Products suited for all foundries in East Africa, steel mills, aluminum furnaces & copper furnaces

We don't just sell refractories — we help you choose the right one based on your application & specific technical challenges you are facing on your furnaces & ladles.

TECHNICAL SUPPORT

We provide free technical consultations, backed by global allied-minerals expertise, to help you:

- Select the right refractory materials
- Optimize lining design & thickness
- Apply best installation & heat-up practices
- Extend furnace lining life & reduce operating costs

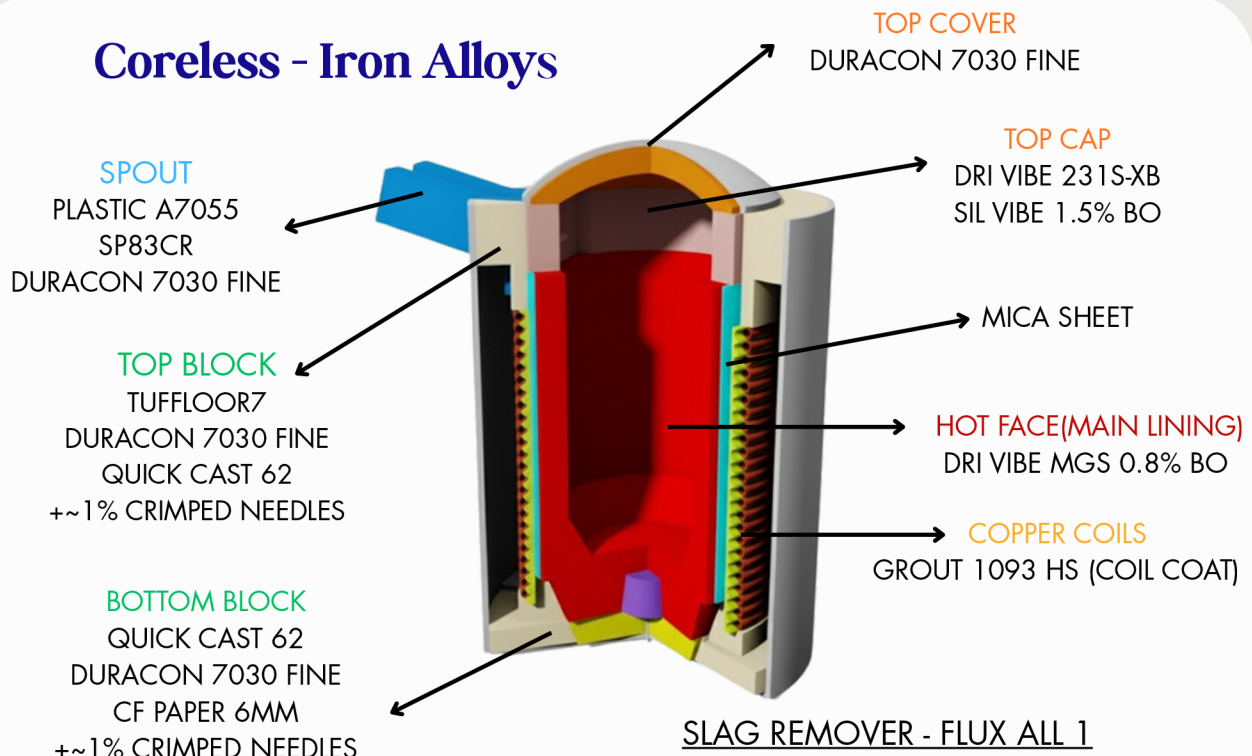
About Us

Established in the year 2004 in Nairobi, Kenya, ABC Metallurgicals Limited has grown into a recognized and trusted supplier of specialized metallurgical spares, industrial hardware, and process-critical consumables across the East African region. Over the years, we have built a reputation for reliability, consistency, and strong technical understanding of the industries we serve. Originally operating as a trading company, we have in recent years strategically transitioned into a distribution-focused model. This evolution has strengthened our capabilities in maintaining stock, ensuring shorter lead times, and providing improved supply chain efficiency for our clients.

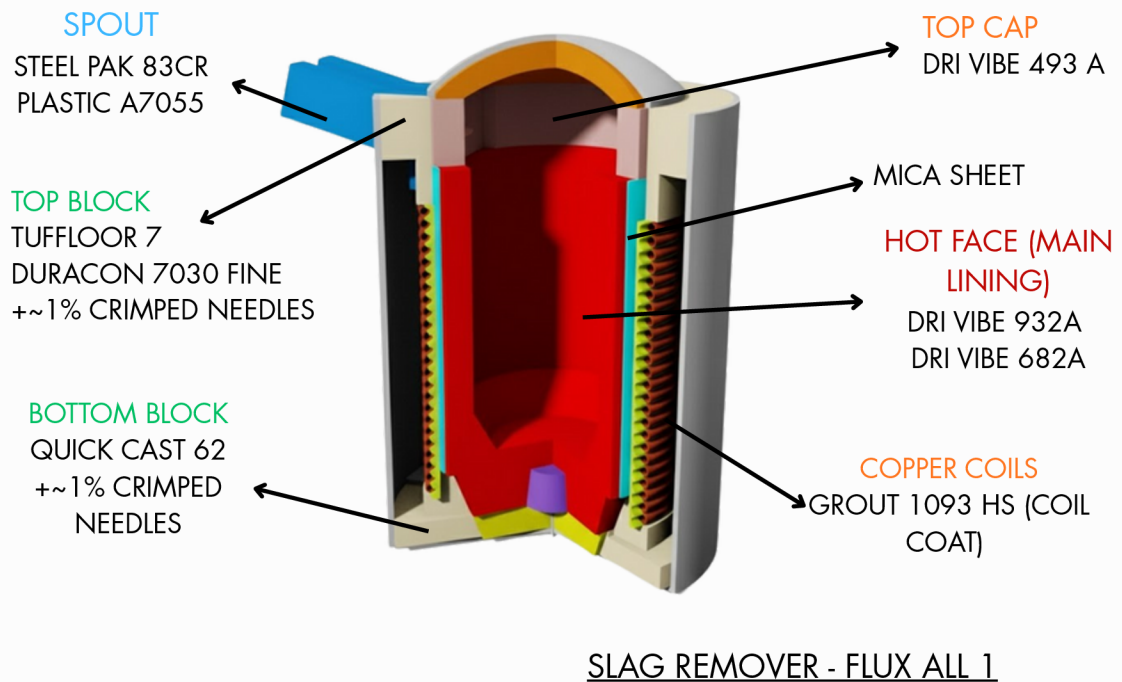


PRODUCT RANGE

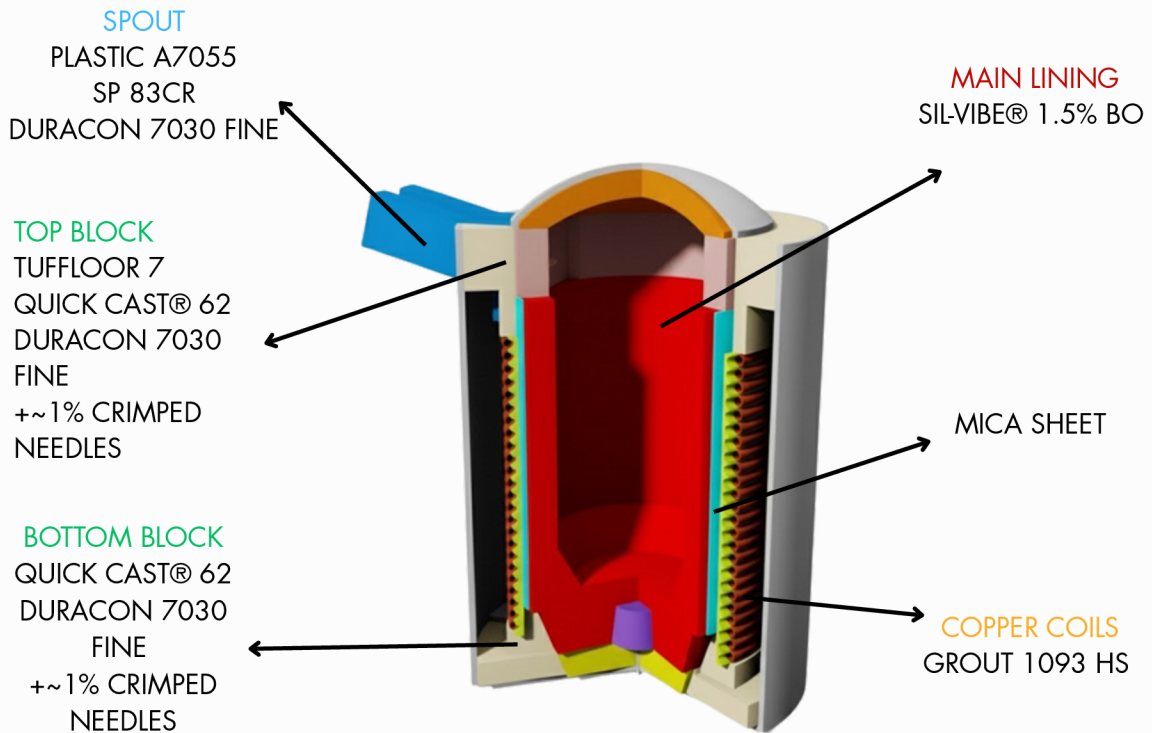
Coreless - Iron Alloys



Coreless - Steel Alloys



Coreless - Copper Alloys (Bronze, Brass, Cupronickel & Nickel)



SLAG REMOVER - FLUX ALL 1

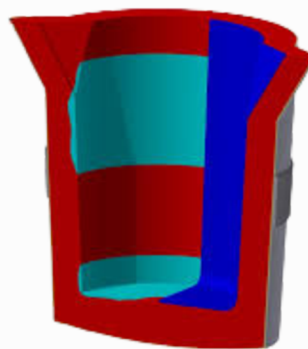
Ladles

IRON ALLOYS LADLES

For small hand ladles
 PLASTIC A7055
 DURACON 7030 FINE

For 300kg & above ladles
 DURACON 7030 FINE

Coating Material
 WASH 160 G



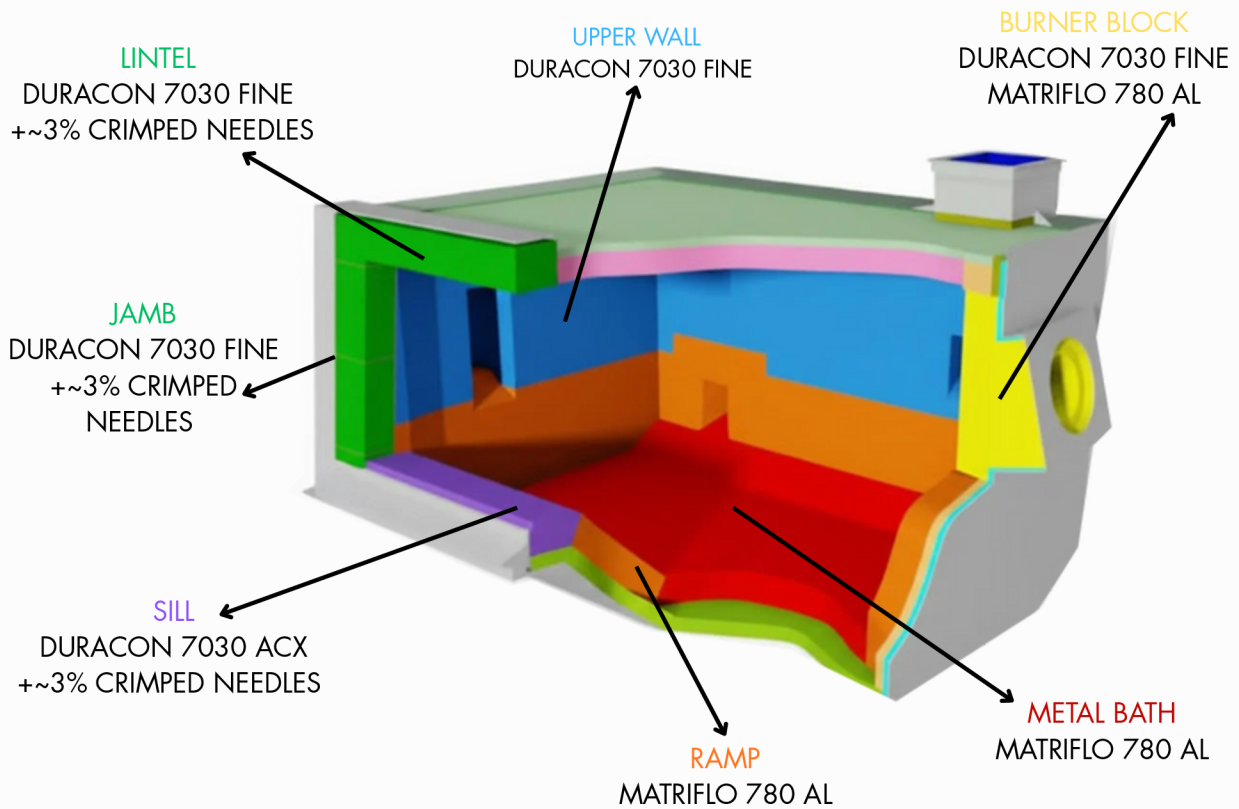
STEEL ALLOYS LADLES

For small hand ladles
 STEEL PAK 83CR
 DURACON 7030 FINE
 PLASTIC A7055

For 300kg & above ladles
 QUICK CAST 62
 DURACON 7030 FINE

Coating Material
 WASH 89 M

Reverberatory Furnace



INDUCTION FURNACE LINING MATERIALS (DRY VIBRATABLES & RAMMING MASSES)

SIL-VIBE® 1.5% BO

What it is:

High-purity silica ramming mass with a boron based bond, supplied as a ready-to-use dry granular mix.

Where it is used:

- * Coreless induction furnace crucible linings
- * Melting of gray iron, ductile iron & malleable iron
- * Iron alloys such as Ni-hard, Ni-resist, & chrome irons
- * Selected copper, brass & bronze induction furnace applications where silica linings are standard practice

Why choose this product:

- * High density trouble free linings with controlled grain size distribution & bond content
- * Ready to use (comes pre-mixed with boron additive)
- * Proven long lining life with proper installation and operation
- * Cost-effective for low-cost iron melting & selected non-ferrous melting
- * Suitable for continuous or periodic melting

Installation:

- * Vibrators, mechanical impact tools, or hand ramming
- * Shipped as ready-to-use, pre-blended dry granular mix

Best for: All types of iron foundries & selected non-ferrous foundries

DRI-VIBE® 932A

What it is:

Fused alumina-based dry vibratable refractory containing magnesia, which provides spinel bonding for strength and stability at high temperatures

Where it is used:

- * Coreless induction furnaces for stainless steel

& high-alloy steels

- * Larger furnaces with tap temperatures between 1500–1700°C
- * Suitable for continuous or batch melting operations

Why choose this product:

- * Excellent chemical to chemical attack from steel slags
- * High thermal stability & mechanical strength at elevated temperatures
- * Spinel bond improves lining integrity & service life under severe conditions

Installation:

- * Vibrators, mechanical impact tools, or hand ramming

Best for: High-alloy steel foundries

DRI-VIBE® MGS 0.8% BO

What it is:

Silica-based dry vibratable refractory designed for lining coreless induction furnaces.

Where it is used:

- * Coreless induction furnace linings for gray, ductile & malleable iron
- * Limited low-temperature steel melting
- * Small-to-medium jobbing foundries producing iron castings

Why choose this product:

- * Economical, reliable lining for small to medium furnaces
- * Handles periodic melting & continuous holding
- * Ready-to-use granular mix simplifies installation and reduces downtime

Installation:

- * Vibrators, mechanical impact tools, or hand ramming

Best for:

Small-to-medium iron foundries



DRI-VIBE® 682A

What it is:

A fused alumina-based dry vibratable refractory for coreless induction furnaces. Designed to handle carbon-steels, stainless steels, & high-alloy steels. Supplied as a ready-to-use dry granular mix.

Where it is used:

- *Coreless induction furnace linings for carbon steels, stainless steels & high-alloy steels
- *Typical tap temperatures up to 1760°C

Why choose this product:

- * Spinel bonding ensures high-temperature strength & excellent resistance to steel slags
- * Reliable thermal stability under severe operating conditions
- *Economical & easy to install

Installation:

- * Vibrators, mechanical impact tools, or hand ramming

Best for:

Steel foundries & coreless induction furnace operations

DRI-VIBE® 493A

What it is:

Fused high-alumina dry vibratable refractory for coreless induction furnaces, designed for high-wear, high-temperature steel & select non-ferrous applications. Supplied as a ready-to use granular mix.

Where it is used:

- *Coreless induction furnace linings for steel & select non-ferrous alloys (magnesium & master aluminium)
- *Top cap linings and other high-wear zones in steel & specialty alloy furnaces
- *Suitable for both batch & continuous melting operations

Why choose this product:

- * High installed densities ensure a strong, uniform lining
- *Resists metal penetration (exceptional non-wetting characteristics)
- *Durable against wear & abrasion in aggressive zones
- *Ready-to-use dry mix allows fast installation & turnaround

Installation:

- * Vibrators, mechanical impact tools, or hand ramming

Best for:

High-wear zones in steel foundries, coreless induction furnaces & select non-ferrous foundries

DRI-VIBE® 231S-XB

What it is:

Silica based dry vibratable refractory with fused silica for improved thermal stability & resistance to thermal shock. Supplied as a ready-to-use dry granular mix

Where it is used:

- * Coreless induction furnace top caps in iron melting applications
- *Other localized high-stress zones prone to thermal shock or cracking

Why choose this product:

- * Enhanced thermal stability & shock resistance
- * Ready-to-use pre-blended mix allows fast, reliable installation
- *Ideal for areas requiring controlled sintering and mechanical integrity

Installation:

- * Vibrators, mechanical impact tools, or hand ramming

Best for:

Iron foundries, particularly for top caps & high-stress lining zones

CASTABLES, PLASTICS & REPAIR MATERIALS

TUFFFLOOR® 7-A PATENTED SPECIALTY PRODUCT

What it is:

Fireclay-based, high-performance refractory flooring material that can be installed as a complete floor over existing or new concrete, or as pre-cast tiles. Designed for heavy-duty industrial hot flooring applications in ferrous & non-ferrous foundries, primary metal production plants, & rolling mills.

Where it is used:

- * Furnace platforms & top rings
- * Walkways & furnace front guards
- * Continuous casting cover machines
- * Furnace front guards
- * Other industrial hot flooring applications

Why choose this product:

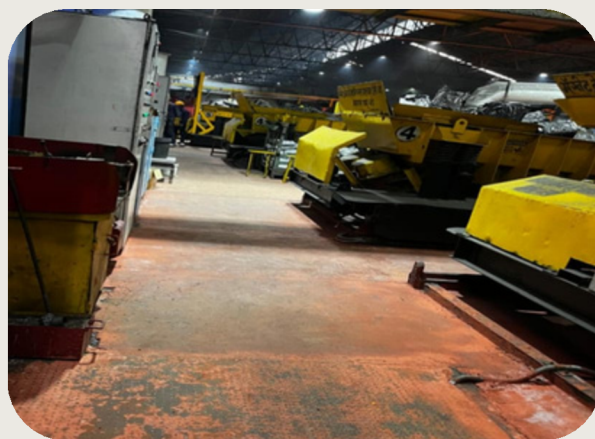
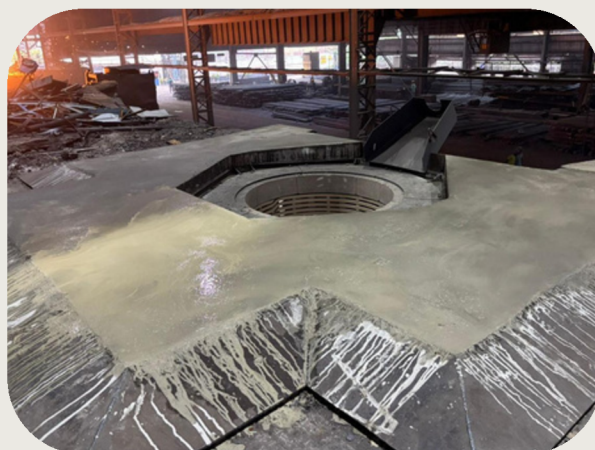
- * Exceptional mechanical strength & abrasion resistance (Mohs hardness 7)
- * High thermal shock stability for rapid temperature changes
- * Durable, long-lasting surface that exceeds conventional concrete in performance
- * Safer working surfaces & minimized wear on mobile equipment
- * Excellent resistance to freeze-thaw cycles

Installation:

- * Trowel application

Best for:

Furnace platforms, top rings, walkways & industrial flooring applications



GROUT 1093HS

What it is:

Fused alumina-based refractory troweling mix with higher strength than standard grouting products. Supplied as a ready-to-use dry mix for quick application.

Where it is used:

- * Inside face of coreless induction furnace coils
- * New coil installations or repairs of existing coil grout

Why choose this product:

- * Electrically insulative, preventing short circuits between induction coils
- * Pigmented for easy identification during maintenance or tear-out
- * Provides structural support to maintain coil lining integrity

Installation:

- * Trowel application

Best for:

- * Coreless induction furnaces requiring structural, insulating & visible coil grout

QUICK CAST® 62

What it is:

A mullite based, fast-setting, low-cement refractory castable for high-temperature applications. Designed for rapid installation & quick return to service.

Where it is used:

- * Coreless induction furnace linings: top caps, sidewalls, bottom blocks & spouts
- * Aluminium melting & holding furnaces: sidewalls, covers & launder channels
- * Forge furnace applications
- * Emergency or scheduled high-temperature lining repairs

Why choose this product:

- * Rapid strength development for fast return to operation
- * Good mechanical strength & hot strength
- * Resistant to thermal cycling

- * Superior abrasion resistance compared to standard castables

- * Relatively wide water tolerance simplifies mixing & installation

Installation:

- * Vibration casting, pumping, self-flow & shotcrete

- Best for:** *Emergency or scheduled repairs & high-temperature lining zones in foundries & furnaces

DURACON® 7030 FINE / ACX

What it is:

Fireclay-based, low cement refractory castable with a balanced blend of alumina and silica. Two variants:

- Fine: for thin linings and smooth surfaces
- ACX: for thick structural linings requiring high mechanical strength & resistance to metal penetration

Where it is used:

- * Fine: thin linings, smooth surfaces in coreless & reverberatory furnaces
- * ACX: structural hot-face components, thick linings, & high wear zones
- * Reverberatory furnace structural components & areas exposed to thermal cycling
- * General industrial refractory applications

Why choose this product:

- * Fine: Low permeability, superior surface quality
- * ACX: high thermal shock resistance, bulk strength & durability
- * Excellent alkali resistance
- * Maintains dimensional stability under wide temperature ranges

Installation:

- * Shuttered casting, hand packing or troweling with light external vibration

Best for:

- * Structural linings, hot-face components, & high-wear zones in coreless and reverberatory furnaces

STEEL-PAK® 83CR

What it is:

Phosphoric acid bonded, high alumina refractory plastic with chromium oxide for enhanced corrosion & abrasion resistance. Coarse alumina provides mechanical strength & durability for demanding steel applications.

Where it is used:

- * Steel ladles & slag line zones
- * Top cap & spout repairs
- * Tundish impact pads & patching
- * Degasser snorkels
- * Burner ports & other high-stress areas

Why choose this product:

- * High hot strength for demanding service
- * Excellent Resistance to corrosion from molten steel & slag
- * Superior abrasion resistance for long service life

Installation:

- * Hand packing or trowel application

Best for:

Steel foundries requiring durable repairs in high-wear & high-temperature zones with minimal downtime

MINRO-AL® PLASTIC A7055

What it is:

Phosphoric acid bonded, aluminosilicate refractory plastic for repairing or lining refractory surfaces where conventional clay or plastic castables are inadequate.

Where it is used:

- * Repairs & patching of refractory linings
- * Ferrous & non-ferrous furnaces, including aluminium
- * Moderate thermal cycling zones
- * Suitable for aluminium furnaces, reverberatory furnaces & small induction furnaces

Why choose this product:

- * Excellent thermal shock, abrasion, & corrosion resistance
- * Effective in areas where clay or plastic-based castables are insufficient
- * Ready-to-use for fast & reliable repairs

Installation:

- * Hand packing or trowel application

Best for:

Foundries needing durable repairs with limited downtime & hand-packed repairs in aluminium & other non-ferrous furnaces

COATINGS, WASHES & PROTECTION

WASH 89M

What it is:

Magnesia-based, clay-bonded protective wash for refractory surfaces. Can be applied as a temporary coating or during minor repairs to protect linings from erosion & abrasion.

Where it is used:

- * Hot or cold repair of refractory surfaces, spouts, ladles & other furnace accessories
- * Areas subjected to minor slag splash or mechanical wear
- * Roofs of reverberatory furnaces & other high wear zones
- * Protects underlying refractory until major maintenance or rebuilds

Why choose this product:

- * Excellent adhesion to hot or cold surfaces
- * Adjustable consistency with water for easy application
- * Protects refractory surfaces, extending service life

Installation:

- * Brush application

Best for:

Foundries & furnaces requiring quick, durable protective coatings or temporary repairs

CW 160G WASH

What it is:

Silica-based refractory wash with carbon. Provides a temporary protective coating for refractory surfaces & a parting layer between metal and refractory.

Where it is used:

- * Daily maintenance of ladles, pouring boxes, spouts, launders & other metal handling equipment
- * Areas where a temporary protective or parting layer is required

Why choose this product:

- * Forms an effective parting plane to prevent metal adhesion
- * Adjustable consistency with water for easy application
- * Protects refractory surfaces & extends lining life

Installation:

- * Brush application

Best for:

Foundries & metal-handling operations requiring quick, durable protective coatings or maintenance

INSULATION & ACCESSORIES

MICA SHEET (0.4 MM)

What it is:

High temperature mica sheet used as electrical insulation for induction furnace coils & other high-voltage applications.

Where it is used:

- * Induction furnace coil insulation
- * Other high temperature electrical insulation applications

Why choose it:

- * Excellent electrical insulation (High dielectric strength)
- * Withstands high temperatures (upto 900 degrees celsius)
- * Chemically stable & resistant to corrosion
- * Flexible and cuttable

Installation:

Cut & fit as required for coil or equipment insulation

Best for:

Induction furnaces & other high temperature electrical insulation needs

CERAMIC FIBRE PAPER 1260

What it is:

Lightweight, , flexible ceramic fibre insulation paper rated for continuous high-temperature service up to 1260 degrees celcius. Designed for thermal insulation, sealing & expansion control in furnaces & hot equipment.

Where it is used:

- * Expansion joints in furnaces & kilns
- * Backup insulation behind refractory linings
- * Gasket & seals in high-temperature environment
- * Thermal barriers between hot metal surfaces & steel structures

Why choose it:

- * Very low thermal conductivity (excellent insulation efficiency)
- * Temperature resistance upto 1260 degrees celcius
- * Lightweight, flexible & easy to cut, wrap or layer
- * Helps absorb expansion & reduce stress on refractories

Installation:

- * Cut & place as required
- * Can be layered or wrapped depending on insulation requirement

Best for:

Expansion joints, backup insulation & sealing applications in foundries & furnaces

SS304 CRIMPED NEEDLES (19 MM)

What it is:

- * Stainless steel (SS304) crimped metal needles are added to refractory castables to improve mechanical strength & crack resistance

Where it is used:

- * Mixed into refractory castables & floor materials
- * Furnace floors, platforms & high wear areas
- * Castable linings exposed to thermal cycling & mechanical stress

Why choose it:

- * Controls shrinkage & cracking during heating & cooling
- * Improves toughness & impact resistance of castables
- * Helps maintain lining integrity under thermal cycling
- * Extends service life of refractory installations

Installation:

Added directly to the castable during mixing at the recommended dosage

Best for:

Castable floors, structural linings & high stress refractory applications

THERMOCOUPLE (1 M, 6 MM, WITH DISPLAY)

What it is:

High temperature thermocouple with a digital display used for accurate temperature measurement during induction furnace lining sintering & furnace commissioning.

Where it is used:

- * Monitoring temperature during sintering of induction furnace linings
- * Verifying correct sintering cycles for silica, alumina & magnesia linings
- * Check furnace temperature during initial heat up & controlled ramping

Why choose it:

- * Ensures proper sintering of induction furnace linings
- * Prevents under-sintering or over-sintering of the crucible
- * Improves lining life & reduces early failures
- * Simple, direct temperature verification with digital display

Installation:

Inserted into the furnace during lining sintering or heat up cycles

Best for:

Foundries installing or sintering induction furnace linings

FLUX ALL-1

What it is:

A whitish briquetted or powder, fluorspar replacement formulated with a proprietary blend of ingredients. When added to molten iron or steel, the ingredients in 'FLUX-ALL 1' react to form calcium and sodium aluminates.

These compounds provide most of the fluxing action. 'FLUX-ALL 1' powder provide performance similar to fluorspar bases fluxes but without the drawbacks of "fluoride emissions". More importantly, there are no "aggressive refractory" interactions that occur with fluorspar containing fluxes. 'FLUX ALL 1' keeps furnaces and ladles free of slag build-up & extends refractory life.

Where it is used:

- * During melting in induction furnaces
- * Added to molten metal to help collect oxides & impurities
- * Used during furnace clean-up and refining stages

Why choose it

- * Improves metal cleanliness
- * Helps remove slag & non-metallic inclusions efficiently from molten metal
- * Assists in cleaner pours & improved casting quality
- * Easy to use with consistent performance

How it is used:

Added directly to the molten metal during melting or refining

Best for:

Foundries seeking cleaner melts & improved casting quality



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