



FURNASCOTE NONVIT REFRACTORY PROTECTIVE COATING

DESCRIPTION

An off white, neutral and high-grade zircon-rich refractory cement specifically formulated to produce a very durable refractory barrier. It is supplied as a dry powder to which water is added to form a creamy paste consistent with its application.

TEMPERATURE RANGE

Upto 1900o Celsius

FUNCTION

To prolong the life of all grades of refractories over its service temperature range. NONVIT will reduce shutdown times and increase refractory efficiency. Long lasting protective coating over fired and dried refractories. NONVIT is used in all applications where thermal shock resistance, corrosion resistance and a gas tight surface are required. NONVIT will resist molten metals, ceramic droppings, metal slag, metal dross and alkali attack up to its service temperature.

PROPERTIES AND TYPICAL ANALYSIS

Chemical Properties:

Zirconia	ZrO2	62.97%
Silica	SiO2	32.09%
Alumina	Al2O3	1.63%
Titania	TiO2	0.25%
Iron Oxide	Fe2O3	0.25%
Calcia	CaO	1.37%
Boron oxide	B2O3	1.10%
Magnesia	MgO	0.34%

PHYSICAL PROPERTIES

Weight per cubic metre – 3364kg/m³

K value @ 500oC – 1.02 watts/m/K

CCS – 350kg/m²

Thermal Expansion – from 0 to 1910oC approximately 1%.

Shrinkage of coatings is low, less than 0.25%

Resistance to thermal shock – excellent in all thicknesses

Electrical Properties – dried coating are good insulators

Coverage - 1.5mm thickness needs ~4.6kg per m²

3.0mm thickness needs ~9.2kg per m²

6.0mm thickness needs ~18.4kg per m²

USES

As a **Patching Material for refractories** it can be applied in self- supporting layers of up to 6mm thick per layer and then completely air-dried.

As a **Wash Coating** it can be applied to 3mm thickness by brush, roller or spray as a refractory barrier on steel and refractory bricks, castables and rammables. Allow to completely air dry.

As a **refractory mortar** it can be applied from 1.5mm to 6mm thickness to give a strong gas tight joint.

BENEFITS

- **REDUCE SLAG ADHESION AND ATTACK**
- **REDUCE REFRACTORY SPALLING AND THERMAL SHOCK**
- **REDUCE CHEMICAL ATTACK AND CORROSION FROM MINERAL, CHEMICAL AND METALLURGICAL PROCESSES**
- **REDUCE ABRASION FROM FUEL IMPINGEMENT, SLAG, DROSS, CEMENT AND LIME PRODUCTION, COKE PRODUCTION, ETC**
- **REDUCE GAS PENETRATION AND LEAKAGE**
- **INCREASE WORKING LIFE AND EFFICIENCY OF ALL FURNACES, LADLES, KILNS, TUNDISHES, LIDS, LAUNDERS, DOORS ETC**

PACKAGING

Supplied as a dry powder in a 25kg pail designed to withstand tropical and arctic conditions. Contact AMT for mixing and surface preparation instructions.

SOME INDUSTRIAL USERS

Alumina Refineries	Iron and Steel making Industry
Aluminium Smelters	Heat Treatment Industry
Aluminium Ingot and Billet producers	Marine/ Shipbuilding/ Ship Repair
Boiler Manufacturers	Metal Refining/ Production Plants
Cement and Lime Manufacturers	Oil Refineries
Ceramic/Pottery Industry	Paper Manufacturing
Chemical Industry	Petrochemical Industry
Fertiliser Manufacturers	Power Stations (Steam Generation)
Foundries – Ferrous/Non Ferrous	Sugar Mills
Gas Industry	Waste Disposal
Glass Making Industry	
Gold Smelting Plants and Refineries	
Incinerator Plants	

SOME APPLICATION BY USER

Annealing Furnaces Heat Treatment Furnaces Coke Oven walls, doors, flues etc Boilers arches, walls Catalytic Crackers Chimney stacks Fuel fired furnaces Heaters Incinerators Aluminium furnace metal lines, roof and doors Homogenising furnaces Cement Kiln burner Pipe Cement Kiln hoods Cement kiln coolers	Copper Launderers, utensils Iron ladles and launders Induction furnace capping Steel tundishes and lids Zinc launders, pans, ladles Waste heat boilers Forging furnaces Reformers Retorts Brick kilns (tunnel, rotary and batch) Pottery kilns
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HEALTH AND SAFETY

1. FURNASCOTE NONVIT is non toxic.
2. In event of skin contact, wash with soap and water.
3. In event of eye contact irrigate well with soap and water