



Xerabond-WR

Xerabond-WR is a sialon bonded silicon carbide product manufactured from high purity raw materials and has exceptional properties to resist a variety of extreme service conditions.

Xerabond-WR has a unique formulation, which has been developed for excellent resistance to abrasion, excellent thermal properties and outstanding chemical stability to acids, alkalis and molten metals.

Xerabond-WR has a high density and is homogeneous. The development of the bonding phase during firing with a fine pore structure and low permeability and hardness gives its wear resistance.

Typical Applications

Wear Resistance:

The abrasion resistance of Xerabond-WR is excellent in impinging, scrubbing and slurry conditions. It also performs well when acidic and alkaline slurries are handled. Applications include nozzles, pump components, cyclone and hydro-cyclone liners and pipe liners.

Molten Non-Ferrous Metals:

Xerabond-WR is not wetted by aluminium, copper or zinc. Components include launders, extrusion tubes, pump parts and pouring nozzles.

Thermal Stability:

Xerabond-WR is suited to temperature variations, including burners and thermocouple sheaths.

Typical Properties

Chemical Analysis:

| | |
|--------|-----|
| SiC | 68% |
| Sialon | 30% |
| Other | 2% |

Physical Data:

| | |
|--|----------------------------|
| Bulk Density | 2.8 g/cm ³ |
| Apparent Porosity | 10-12% |
| MOR at 20°C | 200-220 MPa |
| Abrasion Resistance (BS EN ISO 16282:2008) | 9-12 |
| Thermal Expansion | 4.5 x 10 ⁻⁶ /K |
| Maximum Operating Temperature | 1550°C |
| Corrosion Resistance | Most Acids and Alkalis |
| Resistance to Molten Metals | Aluminium, Zinc and Copper |

(The maximum operating temperature is atmosphere dependent)

All the data quoted has been determined by BS EN ISO standard methods

All data quoted are typical values based on standard samples produced in the laboratory.

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