TECHNICAL DATA SHEET

Product: Iron Silicate

Description An inert synthetic mineral blasting abrasive manufactured by granulation in water of the slag arising from unique fumed copper smelting processes. It is essentially an iron silicate with trace metals bound in an amorphous glass in the form of complex silicates and oxides and contains no free silica. The iron is present as iron silicate in amorphous glass ($Si(Fe,Al,Ca)O_{2,3}$, fayalite Fe_2SiO_4) with accessory magnetite (Fe_3O_4).

Uses As a non-metallic blasting abrasive.

Physical Properties:

Specific Gravity (reference water at 20°C)	3.3
Bulk density	1700 $kg.m^{-3}$
Hardness	7 Mohs
Grain Shape	Angular

Chemical Properties Typical Chemical Analysis

Silica as	SiO_2	33-38%	Aluminium as	Al_2O_3	3-7 %
Iron as	FeO	43-55%	Titanium as	TiO_2	1%
Magnesium as	MgO	1-2%	Calcium as	CaO	1-4%
Zn as	Zn	1-2%	Cu as	Cu	0.5-0.9
Pb as	Pb	0.01-0.2%*	Free silica		<0.5%

*Lead content of Grade 2, 3 and 4 is typically less than 0.04%

Water soluble chloride content - typically <15ppm

Conductivity of aqueous extract - typically < 15 mS/m

Grades

Grade	*size range (mm)*			*Surface profile achieved on mild steel (ISO 8503)*
1	0.1	-	0.40	Less than fine
2	0.2	-	0.85	Fine
3	0.2	-	1.70	Medium
4	0.5	-	2.00	Coarse
5	0.2	-	2.5	Coarse
6	0.5	-	2.5	Coarse

Industry Standards Complies with BS EN 11126 Part 3 - Preparation of Steel Substrates before application of paints and related products – Specifications for non-metallic abrasives Part 3 Copper Slag.

Packing 25 kg bags palletised and shrink-wrapped.

Further Information. Specific enquiries relating to the application and use of iron silicate may be directed to

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