

PRODUCT DATA SHEET



CEMENT GRADE GRANULATE

Product Code: GBF006

PRODUCT DESCRIPTION

GBF006 Cement Grade Granulate is a coarse sand-like material with a porous, amorphous structure ranging from white to golden brown in colour.

APPLICATIONS

ASMS GBF006 is suitable for use in a range of manufacturing and civil applications including:

- Grinding for cement replacement.
- Block making.
- Roadbase stabilisation.
- Water treatment.

COMPOSITION AND MATERIALS

GBF006 is a glassy, granular material produced by granulating blast furnace slag.

Blast furnace slag is the non-metallic product consisting essentially of silicates and aluminosilicates of calcium and other bases. These are developed in a molten condition simultaneously with iron in a blast furnace.

Molten slag is passed through high volume water sprays which break the slag stream into small droplets and are rapidly quenched. This suppresses crystallisation and results in a material with a porous, amorphous structure.

ADVANTAGES

- Consistent chemistry.
- Cementitious properties.
- Low iron levels.
- Bright colour.
- Low chloride content.

ENVIRONMENTAL VALUE

- Effective utilisation of an industrial by-product.
- Conserves natural resources and preserves natural landscape.
- Reduces the requirement for landfilling.
- Reduces greenhouse gas emissions.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	UNIT	TYPICAL
Bulk Density (Loose)	t/m ³	0.95 - 1.15
Glass Content		>85%
Angle of Repose		Approx. 35°

CHEMICAL PROPERTIES

Granulated blast furnace slag is composed of amorphous phases of silicates and aluminosilicates. For ease of reporting, oxide equivalents are used and fall within the relatively narrow limits given below:

CONSTITUENT	SYMBOL	%
Iron Oxide	FeO	<1.3
Calcium Oxide	CaO	38 – 43
Silicon Dioxide	SiO ₂	32 – 37
Aluminium Oxide	Al ₂ O ₃	13 – 16
Magnesium Oxide	MgO	5 – 8
Titanium Dioxide	TiO ₂	<1.5
Manganese Oxide	MnO	<0.5
Hydraulic Index	$\frac{\text{CaO} + \text{MgO} + \text{Al}_2\text{O}_3}{\text{SiO}_2}$	1.7-1.9
Chloride Ion	Cl	<250ppm

TECHNICAL AND CUSTOMER ENQUIRIES

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