

CEMENT GRADE BLENDED GRANULATE

Product Code: GBF056

PRODUCT DESCRIPTION

ASMS GBF056 Cement Grade Blended Granulate is a coarse sand-like material with a porous, amorphous structure ranging from white to golden brown in colour.

APPLICATIONS

GBF056 is predominantly used for grinding for cement replacement. Blended granulate is dried and either inter-ground with Portland cement clinker or separately ground and blended with Portland cement at cement or concrete plants.

COMPOSITION AND MATERIALS

GBF056 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 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 which are rapidly quenched, suppressing crystallisation and resulting 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	0.85 - 1.05
Glass Content		>85%
Angle of Repose		Approx. 35°

CHEMICAL PROPERTIES

Granulated blast furnace slag is composed amorphous phases of silicates and aluminosilicates, but 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	$\frac{CaO+MgO+Al_2O_3}{SiO_2}$	1.7-1.9
Chloride Ion	Cl	<250ppm

TECHNICAL AND CUSTOMER ENQUIRIES

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