

GROUND GRANULATED BLASTFURNACE SLAG (GGBS) to BS 6699

Technical Data Sheet

DESCRIPTION:

Ground Granulated Blastfurnace Slag (GGBS) is a cementitious material for use as part replacement of cement (OPC).

The granulated slag is extracted from the process of pig iron production, where the molten slag is quenched with cold water, producing glassy granulates. These granulates are dried and ground to a fineness suitable for concrete production.

BENEFITS OF THE USE OF GGBS:

The part replacement (30 to 70% slag) benefits the concrete in the following manner:

- Reduced heat of hydration
- Improved chloride and sulphate resistance
- Improved workability
- Long term strength development

BENEFITS OF THE USE OF SEPARATELY GROUND GGBS:

- Good control of material quality
- Unlimited choice of replacement rate

TECHNICAL DESCRIPTION:

TYPICAL BS 6699

CHEMICAL PROPERTIES:

• SiO ₂	34.50	>14%
• Sulphate	0.10	< 2.5
• Chloride	0.01	< 0.1
• Lol	0.55	< 3.0
• MgO	8.20	-
• CaO	37.80	-

CHEMICAL MODULI:

(CaO + MgO)/SiO ₂	1.30	> 1.0
CaO + MgO + SiO ₂	81.00	> 66.6
CaO / SiO ₂	1.33	< 1.4
Moisture	0.20	< 1.0

PHYSICAL PROPERTIES:

Fineness (Blaine)	3875	> 2750
Soundness	0.0	<10.0
Initial Setting Time	175	
Final Setting time (min)	265	
Glass Content	> 90	

COMPRESSIVE STRENGTH:

• 7 days (N/mm ²)	28.0	> 12.0
• 28 days	46.0	> 32.5

DETAILS:

Specific Gravity	2.87
Bulk Density	1100 kg/m ³
Colour	Off-white
Delivery in bulk or jumbo bags	

SOURCE: China

TECHNICAL ADVICE:

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

SAFETY PRECAUTIONS:

Information contained in this data sheet is based on knowledge considered to be true and correct and is offered for the user's consideration, investigation and verification, but we do not warrant the results to be obtained. No statement, recommendation or suggestion is intended for any use which will infringe any patent or copyright.

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