

# **GROUND GRANULATED BLAST FURNACE SLAG**

# PRODUCT DESCRIPTION

Adelaide Brighton Cement markets Ground Granulated Blast Furnace Slag (GGBFS). It is often referred to as Neat Milled Slag (NMS).

GGBFS is manufactured by the grinding of dried granulated iron blast furnace slag (a by product of the iron making process). The resultant powder produced from the milling process is light coloured in appearance and has bulk and relative density properties similar to Portland cement.

# **SUPPLY**

GGBFS is supplied exclusively in bulk from our Birkenhead facility.

# **SPECIFICATION**

GGBFS conforms AS3582.2 Supplementary to Cementitious Materials for use with Portland Cement. Part 2: Slag – Ground granulated iron blast furnace.

#### **APPLICATIONS**

GGBFS combines with lime liberated during the hydrated of Portland cement to form cementitious compounds.

GGBFS is widely used as a cementitious material in premix concrete, mortars, cement based preformed products and grouts.

Depending on the mix design, GGBFS may impart the following benefits into a suitably designed concrete mix, when compared to mixes containing Type GP cement only:

- Improved workability and finishability
- Significantly improved durability
- Reduced heat of hydration
- Improved resistance to sulfate attack
- Improved resistance to chemical attack
- Higher long term strengths
- Lighter colour
- Improved resistance to alkali aggregate reaction

# TYPICAL PROPERTIES

# Chemical Properties

Test	Units	AS 3582.2 Specification	Typical Values
Loss on Ignition	%	3.0 max	0.6
Sulphide Sulphur (S)	%	1.5 max	0.8
Silicon Dioxide	%		33.2
Aluminium Oxide	%	18.0 max	13.6
Iron Oxide (Total)	%	1.5 max	0.6
Calcium Oxide	%		42.4
Magnesium Oxide	%	15.0 max	5.9
Sodium Oxide	%		0.3
Potassium Oxide	%		0.3
Manganese Oxide (MnO)	%	2.0 max	0.2
Sulfur Trioxide	%		1.8
Insoluble Residue	%	2.0 max	0.7

# **Physical Properties**

Grade (m²/kg)	Fineness	420
45 μm residue (%)	No Requirement	90
Specific Gravity	No Requirement	2.9

# HANDLING AND STORAGE

Transportation is in bulk road tankers or in bulk bags. GGBFS can be stored in concrete or steel silos and in bulk bags for at least one year. Protection against ingress of moisture must be observed throughout the handling and storage.

### SAFETY INFORMATION

For safety information refer to the Safety Data Sheet for GGBFS.

#### CONTACT POINTS

For further information contact the Sales and Marketing Department at:

Adelaide Brighton Cement Ltd ABN 96 007 870 199 62 Elder Road **BIRKENHEAD SA 5015** 

Telephone: 08 8300 0300 Facsimile: 08 8341 1591

Web Site: www.adelaidebrighton.com.au

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