



# Crushed Granulated Blast Furnace Slag Abrasives Technical Data Sheet

## 1. DECLARED COMPOSITION

	Units	Average Values	Requirement	
			Min.	Max.
Crushed Granulated Blast furnace Slag <sup>1</sup>	%	100	-	-

<sup>1</sup> Granulated blast furnace slag is sourced from British Steel Scunthorpe but can also be sourced/imported from various locations and blended to create a consistent feed.

## 2. CHEMICAL CHARACTERISTICS

The chemical characteristics are determined in accordance with the following laboratory procedures:

HCCL OP 093 - Determination of chemical analysis by XRF.

	Units	Average Values	Requirement	
			Min.	Max.
SiO <sub>2</sub>	%	36.36	35.00	38.00
Al <sub>2</sub> O <sub>3</sub>	%	11.10	10.50	13.50
CaO	%	39.39	38.00	41.00
MgO	%	8.10	7.00	10.00
MnO	%	0.40	-	1.00
TiO <sub>2</sub>	%	0.66	0.50	1.00
Na <sub>2</sub> O	%	0.25	-	0.60
K <sub>2</sub> O	%	0.57	-	1.00
S	%	0.87	0.85	1.05
Fe <sub>2</sub> O <sub>3</sub>	%	0.32	0.20	0.40
C <sup>1</sup>	%	0.03	-	0.10
Moisture <sup>3</sup>	%	0.06	-	0.50

<sup>1</sup> HCCL OP 095 – Determination of Total Carbon and Total Sulphur of Cementitious Powders and Calumite by LECO.

<sup>2</sup> HCCL OP 089 - Determination of moisture content of Cementitious Powders, Granulate, and Calumite.

## 3. PHYSICAL CHARACTERISTICS

### Particle Size Distribution

Sieve Size	Units	Passing %	Average Values	Requirement	
				Min.	Max.
850 µm	%	99.5 Min.	99.9	99.5	-
710 µm	%	95.0 Min.	96.5	95.0	
75 µm	%	12.0 Max.	7.0	-	12.0

### Material Properties

Properties			
Density	2.6-3.0 g/ cm <sup>3</sup>	Dust Levels	High
Bulk Density	1.3-1.4 g/ cm <sup>3</sup>	Shape	Sharp & Angular
Hardness	5 – 6 Mohs	Conductivity	10 mS/ m
Friability	High	Chloride	< 0.0007%
Recyclability	None	Free Silica	<0.1%

## 4. PRODUCTION

Calumite is produced from blast furnace slag that has been rapidly quenched to form a homogenous, glassy material. During the Calumite production process, this material is dried, crushed and screened to produce a granular material.

The slag is chemically tested prior to use allowing us to blend material if necessary, to maintain chemical consistency of the Calumite product.

All finished product is tested for chemical and physical compliance in our internal laboratories.

## 5. DELIVERY

- ❖ Bulk Delivery - 28t by tanker or tipper.
- ❖ Woven polypropylene lined bags for moisture protection – 1.25t or 2.5t.
- ❖ Other delivery and packaging options are available on request.

## 6. MANAGEMENT SYSTEMS

The plants management system is certified to BS EN ISO 9001: 2015.

## 7. DECLARATION OF PERFORMANCE

Certificates of analysis are produced weekly and are a composite sample of the weeks production as stated in the laboratory procedure - HCCL OP 119 – Daily and Weekly Calumite Testing.

These are circulated via email

*The average values given above represent the previous 12 months production and are provided as guidelines only. The minimum and maximum requirements are specification limits.*