

# Cast Basalt Tiles

## Installation

Basalt tiles can be bedded and jointed in cement or special bonding agents (e.g. resins). The agent chosen depends on the application. On the more straightforward installations any competent bricklayer or refractory tiler would have little difficulty working to instructions supplied by us. On jobs where extensive cutting is needed, or considerations of vibration, impact, etc apply we are ready to provide skilled labour and /or supervision at short notice. We can also pre-cut tailored tiles in our works.

## General Technical Data

Specific Gravity:	2.9-3.0
Compressive Strength:	78,000 lb/in <sup>2</sup>
Tensile Strength:	5,100 lb/in <sup>2</sup>
Bending Strength:	6,500 lb/in <sup>2</sup>
Hardness:	8.5 Mohs scale (726 Vickers 60 Rockwell)
Dielectric Strength:	100Kv/in
Thermal Expansion:	75 - 80 x 10 <sup>-7</sup> OC up to 500 OC
Specific Heat:	0.2
Co-efficient of Friction:	
(Basalt to mild steel)	0.245 unpolished 0.215 polished surface

## Nominal Dimensions

### Standard Basalt Tiles

Millimetres
200 x 100 x 22
200 x 200 x 22
* 200 x 100 x 30
* 200 x 200 x 30
* 250 x 125 x 30
* 250 x 250 x 30
* 300 x 150 x 30
* 300 x 300 x 30
200 x 100 x 50
200 x 200 x 50
200 x 100 x 75
300 x 100 x 75
200 x 50 x 100

\* Also available with countersunk central 16mm hole



A Power Station Coal Bunker completely lined in cast basalt tiles



Basalt Lined Waste Water Sluiceway

## Dimensions

Standard Curved Basalt Tiles	mm
Length	250
Thickness	30
Specific radius of channel required	

## Chamfered Basalt Tiles for large curvatures

	mm
Length	200
Width front	100
Width back	110
Thickness	30

Special shapes and sizes are available to order

## The Greenbank Group UK

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## Greenbank Terotech - Heavy Industrial Division

"Engineering added value in the application, design, management and manufacturing of physical assets in pursuit of economical lifecycle costs"



**Enhancing Performance**

### Cast Basalt Tiles

Greenbank Terotech have over 5 decades of experience supplying and installing a comprehensive range of cast basalt tiles designed to combat wear and Corrosion. Basalt tiles are specially engineered to provide a long-lasting lining to static plant over which large volumes of abrasive and/or corrosive materials are passed.

Basalt is a material formed from Basaltic Rock/Slag combined with crystallising agents. When cast it has two exceptional qualities. Firstly the abrasive resistance, which is a most important factor, becoming several times higher than that of iron or steel. Secondly, it has a high degree of chemical resistance.

For the lining of chutes, bunkers, hoppers and sluiceways Basalt has become a world standard tiling material at fossil fuel power stations. Basalt is an all round cost effective and adaptable lining material that extends the life of equipment where affected by erosion. Most applications show a 10-15 year life before replacement.

Compared, for example, with mild steel carbon on a wet coal chute, where the steel suffers from corrosion as well abrasion, we would have no doubt that basalt tiles would last at least 15 times the life of mild carbon steel.

Furthermore, the material passing over the Basalt gradually gives it a high polish. In direct contrast to other linings, friction is reduced the more use the Basalt gets.

Basalt can be cast and cut to fit the most difficult shapes and provides a cost effective solution to many wear problems.

Industries served include:

- Coal Fired Power Stations
- Paper & Pulp
- Coal Mining
- Steel
- Cement
- Glass
- Sand and Gravel
- Sugar
- Automotive
- Commercial and Decorative



Basalt lined conveyor Head Chute



Cast Basalt lining with concrete pipe sections