

CAST BASALT Lined Pipe & Fittings

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C.B.P. ENGINEERING CORP.

DESIGN * MANUFACTURING * INSTALLATION
ABRASION-RESISTANT CONVEYING AND MATERIALS HANDLING SYSTEMS
A subsidiary of The Greenbank Group, Inc.

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Cast Basalt is a neo-volcanic eruptive rock which is cast in a method similar to that of cast iron. After careful annealing it forms a re-crystallized black ceramic of extreme hardness and abrasion resistance. In addition it will withstand temperatures up to 800°F.

Unlike other materials which roughen as solids pass over it, cast basalt develops a high polish. Its slick surface allows materials to flow freely which eliminates hang ups and blockages.

Cast Basalt can be cast into virtually any shape. For its use as a pipework lining the cast basalt is cast into cylinders. The cylinders are typically inserted into a steel shell and secured with cement. The exterior casing can be spiral welded pipe, standard ERW pipe, fiberglass, stainless steel etc. The pipe ends can be flanged, plain for dressers or grooved for victaulic couplings. Flanged ends can be adapted to fit up to any existing system.

Any inside diameter of pipe can be matched but typically standard sizes are used.

Fittings, including elbows, tees, laterals etc. can be lined with cast basalt. The overall dimensions of the fittings are not limited and therefore any centerline radius elbow can be built and lined.

Tests and field experience gathered over the last 40 years show that cast basalt will out wear most other wear products in slurry applications.



Properties of Cast Basalt

Specific Gravity (referred to water)	2.9 – 3.0
Compressive Strength	78,000 lb./in. ²
Tensile Strength	5,100 lb./in. ²
Bending Strength	6,000 lb./in. ²
Hardness	8.5 MOHS
Water Absorption	0%
Thermal Expansion	75-80 x 10 ⁻⁷ inch/°C per ft.

Delivering Solutions

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TYPICAL APPLICATIONS FOR CAST BASALT LINED PIPE AND FITTINGS

- Any Abrasive Slurry System
- Abrasive Pneumatic Systems with Certain Operating Criteria

Specific Applications

Coal Fired Power Plants

- Bottom Ash Slurry Conveying
- Flyash Slurry Conveying
- Dust Conveying
- Pyrite Conveying
- FGD Slurry Conveying



Coal Preparation

- Heavy Media Pump Lines
- Effluent Lines
- Dilute Media Lines
- Return Lines
- Refuse Lines



Steel Mills

- Dust Collection Pipework
- Slag Conveying

Other industries that will benefit with the use of cast basalt lined pipe and fittings

- Pulp and Paper
- Sewage Treatment
- Phosphate Processing
- Potash Processing
- Cement Plants
- Sand & Gravel Plants
- Shingle Manufacturing
- Quarries
- Glass Manufacturing
- Food Processing



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