

GrafTech Introduces

the RefractoryFlex™ Program

Peace of mind, not a piece of your bottom line!

In today's economy, stopping and restarting blast furnaces has become a way of life. Thermal cycles caused by shutdown and startup can cause serious damage to the hearth refractory, shell, and cooling systems, especially if the hearth was not drained. If a failure occurs, the lost production alone can cost millions. Recent cases around the world are proving us right!

Solution? The Graftech RefractoryFlex™ Program!

The hearth may be the most critical piece of equipment on a blast furnace, and smart operators always have spare parts for critical equipment. Access to an inventory of GrafTech's unique HotPressed™ bricks, cement and ram can save days or weeks of downtime when emergency repairs are needed.

For an average blast furnace, each extra day of unplanned downtime may cost the company a million dollars or more. Imagine the cost of waiting a week or two for materials to arrive!

Now imagine the money saved by having the needed materials available instantly. In the event of a problem, investing in either of the RefractoryFlex™ Program options might pay for itself in a few hours.

The RefractoryFlex™ Program has other benefits as well:

- ✓ *Easy-to-fit small bricks can be used with any type of existing lining and any size repair*
- ✓ *Bricks can quickly be adapted to fit all furnaces with little effort*
- ✓ *Unused bricks can be applied to a full lining*

The overview below briefly describes the solutions included in the RefractoryFlex™ Program. Please contact GrafTech for more detailed information on the different options we offer and how these can be tailored to best fit your company's furnace situation.

Don't leave your productivity and bottom line to chance!

Get peace of mind with the RefractoryFlex™ Program!

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The RefractoryFlex™ Program- 2 options for protection!

<p>The RefractoryFlex™ Program</p>	<p>FlexLine™ System – the Universal Hearth Lining <i>Maximum flexibility to replace any amount of hearth wall, up to a full lining, when and where needed</i></p>	<p>FlexRepair™ System – the Instant Hearth Repair Package <i>Material at your fingertips for a medium or small repair on any size furnace, with the flexibility to apply it to a future reline at an attractive price</i></p>	<p>Refractory Spot Purchasing <i>Buy GrafTech refractories as you need it in case of lining emergency</i></p>
<p>Protection Against Downtime</p>	<p>Ultimate Protection No unnecessary delays or loss of production. No lead or shipping time. Up and running in no time!</p>	<p>Good protection For medium to minor repairs + can be applied to future reline at a good price</p>	<p>No Protection Could lose extensive days of production + time it takes to make emergency repair</p>
<p>Availability</p>	<p>Immediate availability up to a full reline</p>	<p>Immediate availability up to a medium repair scope</p>	<p>Four to eight weeks, depending on amount of material needed + shipping</p>
<p>Best Solution For</p>	<p>Multi-plant companies</p>	<p>Multi and single furnace plants</p>	<p>Brave operators or idled furnaces</p>



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