FULL RANGE OF REPAIR PRODUCTS

CASTABLES - SIALFRAX™ CAST
Colloidal-silica bonded Al₂O₃-SiC-Carbon castables
- SIALFRAX™ 18 CAST+

SHOTCRETE - SIALFRAX™ SHOT
Colloidal-silica bonded Al₂O₃-SiC-Carbon castables
- SIALFRAX™ 18 SHOT+

FEATURES & BENEFITS

SIALFRAX™ CAST
- Excellent hot and mechanical strengths
- Minimized lining wear rate
- Very good resistance to thermal shock, creep, erosion, chemical attack

SIALFRAX™ SHOT
- Fast installation rate
- Low rebound (< 5.0 %)
- Ideal for a combination of fast pumping + robot application techniques
- Excellent adhesion, no matter what wall thickness is required

HOT MODULUS OF RUPTURE

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>SIALFRAX™ 18 CAST</th>
<th>SIALFRAX™ 18 CAST+</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>1000</td>
<td>13.3</td>
<td>13.3</td>
</tr>
<tr>
<td>1450</td>
<td>20</td>
<td>20.1</td>
</tr>
</tbody>
</table>

Application of shotcrete - Sialfrax™ Shot

SIALFRAX™ - CAST+ and SHOT+ SERIES

Our PLUS (+) special products comprise a new generation of colloidal silica-bonded materials, which were designed to obtain very good rheological properties, a more dense structure and lower porosity, enabling them to deliver extremely high abrasion and corrosion resistance guaranteeing the maximum protection for blast furnace walls.

Target: Minimize your lining wear rate!
With lifetimes of blast furnace campaigns increasing up to 20 years and beyond, intermediate refractory repairs gained significant importance. Saint-Gobain provides colloidal-silica bonded castables (SIALFRAX™ CAST) for re-profiling the hearth and repairing the tapholes as well as high-performance shotcreting materials (SIALFRAX™ SHOT) for the repair from hearth to lower stack.

<table>
<thead>
<tr>
<th>AREA</th>
<th>MAIN WEAR MECHANISM</th>
<th>SUITABLE SHOTCRETE PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearth</td>
<td>Molten Iron / Slag Erosion</td>
<td>SIALFRAX™ 18 CAST+</td>
</tr>
<tr>
<td>Bosh</td>
<td>Abrasion / Strong Alkali Attack</td>
<td>SIALFRAX™ 18 SHOT+</td>
</tr>
<tr>
<td>Lower Stack</td>
<td>Abrasion / Strong Alkali Attack</td>
<td>SIALFRAX™ 18 SHOT+</td>
</tr>
</tbody>
</table>

All shotcrete materials are also available as a castable.
WE ARE COMMITTED TO BEING CARBON FREE BY 2050.

OUR MISSION
Saint-Gobain designs, manufactures and distributes materials and solutions which are key ingredients in the well-being of each of us and the future of all.

OUR PURPOSE
MAKING THE WORLD A BETTER HOME.

OUR GLOBAL PRESENCE

USA
Niagara Falls
Worcester

MIDDLE EAST & AFRICA
Dubai (UAE)

EUROPE
Castellón (Spain)
Corsico (MI), (Italy)
Prague (Czech Republic)
Rainford (United Kingdom)
Rödental (Germany)

INDIA
Bangalore
Halol

PACIFIC
Melbourne (Australia)

JAPAN
Nagoya

CHINA
Dengfeng

ASIA
Seoul (Korea)

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