Product Brochures

Fiber Crete®
Composite Castables

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Introduction to Fiber Crete®
Composite castables

Background

We at Delta Refractories® have developed the Fiber Crete® range of castables for a very specific reason: our clients needed a very strong castable with extreme thermal shock resistance properties. These castables find application in the industries where normal castables and bricks are failing due to a lack of sufficient thermal shock resistance properties and not enough mechanical strength at low, intermediate and high temperatures.

Product Information

The Fiber Crete® range of products are all composites of stainless steel and a ceramic matrix. The stainless steel needles provide the thermal shock resistance and the ceramic matrix acts as the binder system. The composition of the ceramic binder system and the grade and percentage stainless steel needles are parameters, which form part of product design in order to meet the specific needs of the end user. When we design the ceramic matrix, we may incorporate minerals and materials such as spinel, tabular alumina, corundum, fused alumina, andalusite, SIC, zircon, zirconia, green chrome oxide, magnesia and others. The selection is of raw materials is influenced by the chemical and physical properties we aim to engineer into the final product. The same selection criteria are applied when selecting the grade and percentage stainless steel needles.

Please contact our technical department for more information regarding the products and their properties as well as prices. These products are only supplied and sold as precast shapes. In order to make the precast, we require end user supplied drawings. Our Engineers will make CAD drawings and after client approval, we can make moulds for the precast shapes.

Below we list a few products we have designed and sold during the past few years.

<table>
<thead>
<tr>
<th>Brand name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta Fiber Crete® 200</td>
<td>Tabular alumina based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 201</td>
<td>Andalusite based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 202</td>
<td>Aluminium metal resistant</td>
</tr>
<tr>
<td>Delta Fiber Crete® 203</td>
<td>Spinel based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 204</td>
<td>Alkali resistant</td>
</tr>
<tr>
<td>Delta Fiber Crete® 206</td>
<td>Tabular alumina and zirconia based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 207</td>
<td>Tabular alumina and zircon based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 208</td>
<td>Tabular alumina and magnesia based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 209</td>
<td>Tabular alumina and zirconia based</td>
</tr>
<tr>
<td>Delta Fiber Crete® 210</td>
<td>Tabular alumina and green chrome oxide based</td>
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</tbody>
</table>
Transfer ladle pouring
Casting ladle lip ring blocks

**MATERIAL:**

**DATE:**

**REVISION NO:**

**TITLE:**

**DRAWING NO:**

**VOLUME:**

**MASS:** 318.016 kg

**DENSITY:** 3200 kg/m³

**CLIENT REF NO:** 07240/13

**CLIENT:** ARCELORMITTAL NC

**TRANSPORT LADLE LIP RING - SECOND TRIAL**

**NOT APPROVED FOR MANUFACTURE UNLESS SIGNED**

**DELTA FIBER CRETE 200**

**DELTA REFRACTORIES (PTY) LTD**

**Telephone** +27 16 422 9955

**Website** www.deltaref.com

**Address**
9a Telford Street
Vereeniging, South Africa
Revised: 2015/03/27

**Page 4 of 10**
Tundish corner pieces

Fiber Crete® Composite castables

Delta Fibre Crete 200

Mass: 277.274 kg
Volume: 0.2205 m³

Client Ref No: 044/1/11

ArcelorMittal - Vanderbijlpark

30/11/2011

L. Greeff

Fiber Crete 5 Degree Insert for V1 & V2, Tundish Corners

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Page 5 of 10
Torpedo slag stopper

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Material</th>
<th>Quantity</th>
<th>Volume (m³)</th>
<th>Mass (kg)</th>
<th>Density (kg/m³)</th>
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<tbody>
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<td>0.06441</td>
<td>212.573</td>
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<td>4</td>
<td>Delta Cast 415</td>
<td>2</td>
<td>0.01947</td>
<td>51.601</td>
<td>103.201</td>
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EAF Lauders
Copper launder bend
**Slag scrapers**

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
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<th>Density (kg/m³)</th>
<th>Mass (kg)</th>
<th>Volume (m³)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Shelf</td>
<td>DELTA FIBER CRETE 200</td>
<td>2300</td>
<td>69.072</td>
<td>0.02982</td>
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<tr>
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<td>DELTA FIBER CRETE 200</td>
<td>2300</td>
<td>69.072</td>
<td>0.02982</td>
</tr>
</tbody>
</table>

**DELTA FIBER CRETE 200**

**REVISION No:**

**TITLE:** DESLAGING BLADE - DELTA CONCEPT

**DRAWING No:**

**VOLUME:**

**MASS:** 3200 kg/m³

**DENSITY:** 93.518 kg

**3200 kg/m³**

**99518 kg**

**DELUSING PLATE - CONCEPT 2**

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