



Product Brochures

Fiber Crete® Composite castables

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SACAS
ISO 9001:2015

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ISO 14001:2015

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OHSAS 18001:2007

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 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.

Brand name	Description
Delta Fiber Crete[®] 200	Tabular alumina based
Delta Fiber Crete[®] 202	Aluminium metal resistant
Delta Fiber Crete[®] 203	Spinel based
Delta Fiber Crete[®] 204	Alkali resistant
Delta Fiber Crete[®] 206	Tabular alumina and zirconia based
Delta Fiber Crete[®] 207	Tabular alumina and zircon based
Delta Fiber Crete[®] 209	Tabular alumina and zirconia based
Delta Fiber Crete[®] 210	Tabular alumina and green chrome oxide based
Delta Fiber Crete[®] 211	Tabular alumina and silicon carbide based

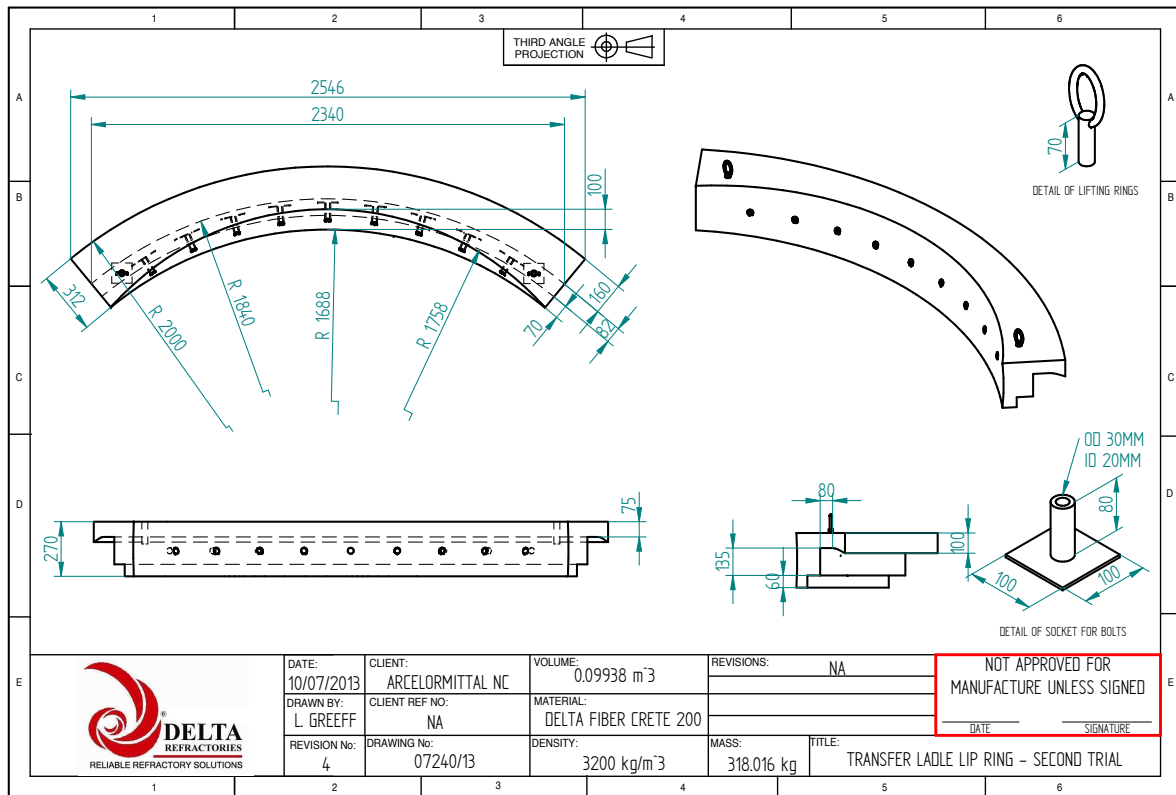
Fiber Crete® Composite castables

Transfer ladle pouring



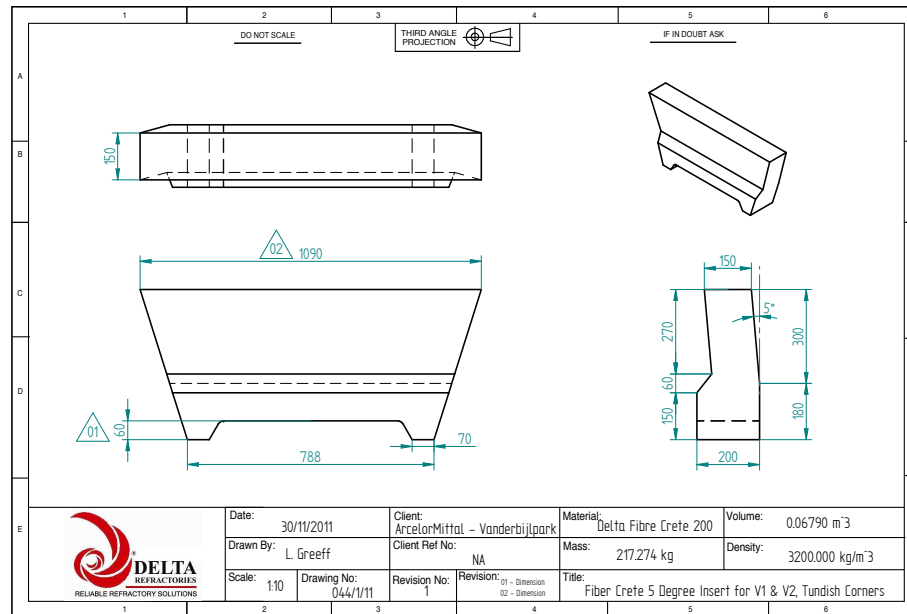
Fiber Crete® Composite castables

Casting ladle lip ring blocks



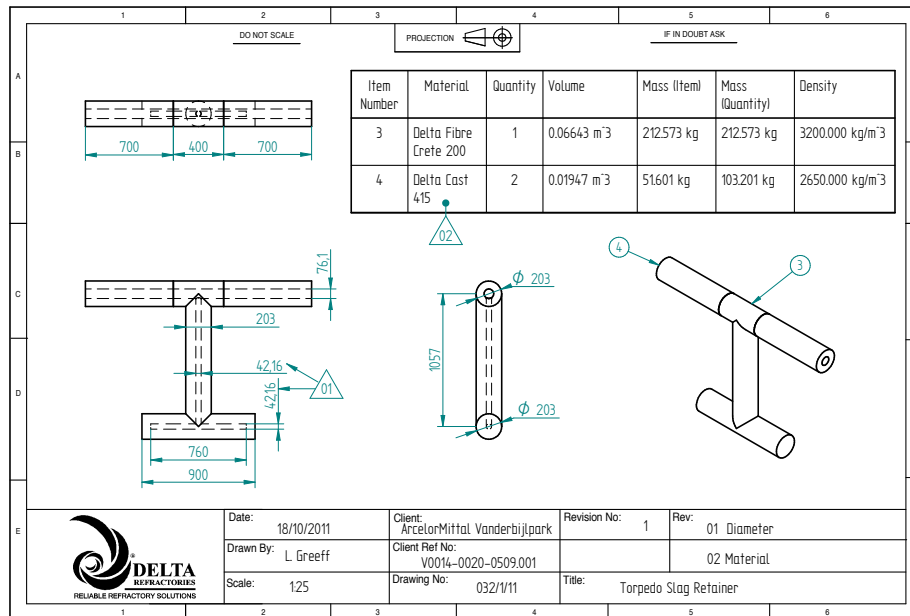
Fiber Crete® Composite castables

Tundish corner pieces



Fiber Crete® Composite castables

Torpedo slag stopper



Fiber Crete® Composite castables

EAF Launder



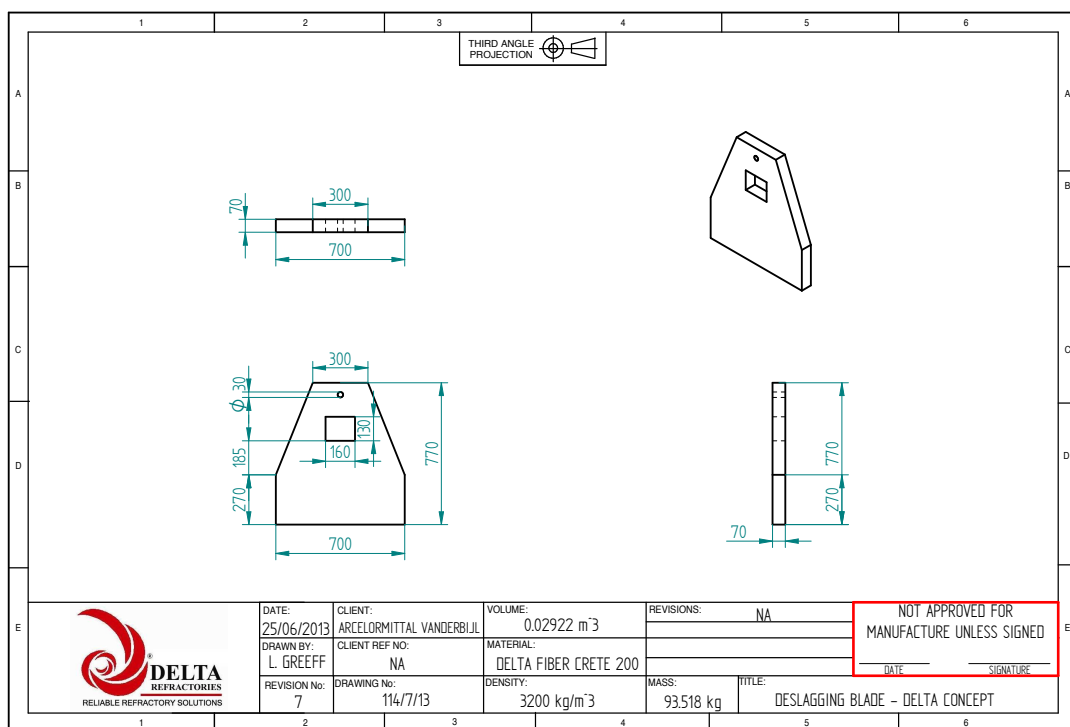
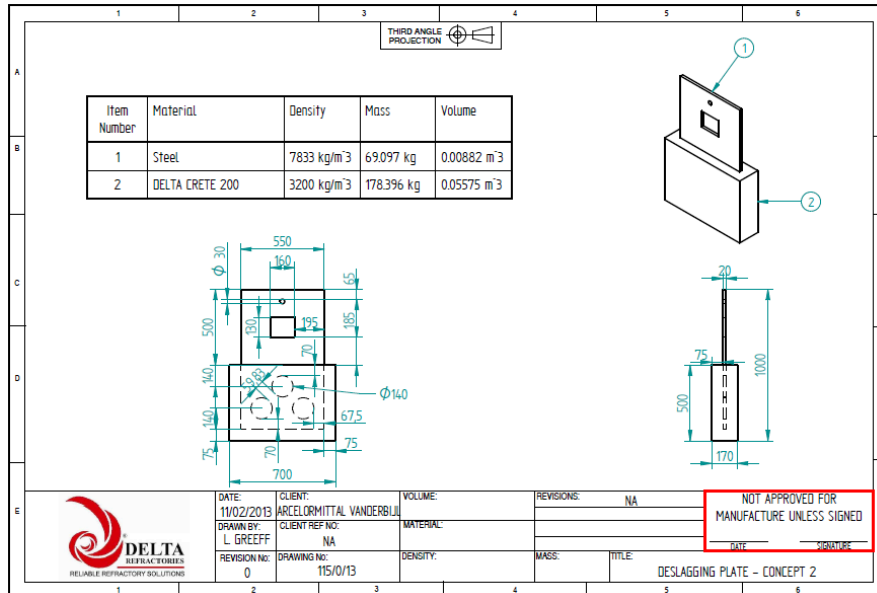
Fiber Crete® Composite castables

Copper launder bend



Fiber Crete® Composite castables

Slag scrapers



Product datasheet for Delta Fiber Crete® Composite Castables

Description	Remarks	Max temp ° C	SiO ₂	Al ₂ O ₃	CaO + MgO	Cr ₂ O ₃	ZrO ₂	SiC	Others	CCS Mpa 110C	BD g/cm ³
Delta Fiber Crete® 200	Tabular alumina based	1200		>90	<10					>120	3.2
Delta Fiber Crete® 201	Andalusite based	1200	<30	<80	<20					>120	>2.9
Delta Fiber Crete® 202	Aluminium metal resistant	1200	<20	<70	<10				<10	>120	3.2
Delta Fiber Crete® 203	Spinel based	1200		>80	<20					>120	3.2
Delta Fiber Crete® 204	Alkali resistant	1200		<70	>30					>120	>2.6
Delta Fiber Crete® 206	Tabular alumina and zirconia based	1200		>70	<30		>3			>120	3.2
Delta Fiber Crete® 207	Tabular alumina and zircon based	1200	<20	>70	<30		>3			>120	3.2
Delta Fiber Crete® 208	Tabular alumina and magnesita based	1200		>70	<30					>120	3.2
Delta Fiber Crete® 209	Tabular alumina and zirconia based	1200		>70	<30		>3			>120	3.2
Delta Fiber Crete® 210	Tabular alumina and green chrome oxide based	1200		>70	<30	>3				>140	3.2
Delta Fiber Crete® 211	Tabular alumina and silicon carbide based	1200		>30	<10			<60		>100	2.9