

# **CALDE™ CAST NB 82 QD**

<b>PRODUCT TYPE</b>	: Alumina - Silica product No cement castable
Maximum recommended temperature	: 1650°C
Main component	: Bauxite
Type of bond	: Mineral reaction
Appearance	: Dry, for addition of water
Packaging	: Sacks or big bags
Shelf life	: Sacks : 6 months - Big-Bags : 4 months
Installation method	: Vibrating
Maximum grain size	: 6 mm
Material required	: 2.75 T/m <sup>3</sup>
Drinking water required for mixing on site	: 6.0 / 7.0 litres per 100 kg of dry material
Guidelines	: Installation Nr 6-QD

<b>PRODUCT PROPERTIES</b>	<b>STANDARD</b>	<b>AVERAGE VALUES</b>	<b>UNITS</b>
<u>CHEMICAL ANALYSIS</u>			
Al <sub>2</sub> O <sub>3</sub>	EN 1402-3	82.0	%
SiO <sub>2</sub>	EN 1402-3	13.5	%
Fe <sub>2</sub> O <sub>3</sub>	EN 1402-3	1.0	%
CaO	EN 1402-3	0.2	%
<u>PHYSICAL PROPERTIES</u>			
<u>Measured on samples prepared according to</u>	EN 1402-5		-
<u>Bulk density</u>			
after drying at 110 °C	EN 1402-6	2.77	g/cm <sup>3</sup>
after firing at 800 °C	EN 1402-6	2.76	g/cm <sup>3</sup>
<u>Cold crushing strength</u>			
after drying at 110 °C	EN 1402-6	75	MPa
after firing at 800 °C	EN 1402-6	80	MPa
after firing at 1200 °C	EN 1402-6	150	MPa
after firing at 1400 °C	EN 1402-6	110	MPa
<u>Permanent linear change</u>			
after firing at 800 °C	EN 1402-6	-0.2	%
after firing at 1200 °C	EN 1402-6	-0.3	%
after firing at 1400 °C	EN 1402-6	+0.3	%
after firing at 1600 °C	EN 1402-6	-0.2	%
<u>Thermal conductivity</u>			
at a mean temperature of 800 °C	EN 993-15	2.35	W/mK
at a mean temperature of 1000 °C	EN 993-15	2.26	W/mK
at a mean temperature of 1200 °C	EN 993-15	2.23	W/mK
<u>Abrasion resistance</u>			
after firing at 815°C	ASTM C 704	< 6	cm <sup>3</sup>
<u>Reversible thermal expansion after firing [20-1000 °C]</u>	-	0.76	%

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The data are current production averages. They cannot be used as limits for a specification.