

KALCRET BTY

Hard Compound

Material data sheet

Material description in general

KALCRET BTY is a castable, cement-bonded hard material compound for seamless protection of large-volume plant components. The material on the base of bauxite has high abrasion resistance and compressive strength as well as temperature resistance. KALCRET BTY is easy and quickly to use and ensures fast availability of plant components. KALCRET BTY is offered in bags-supply or as individual shape. Kalcret is suitable for high temperature loads.

Characteristics of the installed material

Feature	Unit	Data
Hard material content	Wt.-% Bauxite	70
Density	g/cm ³	2.7
	lb/ft ³	175
Thermal coefficient of expansion	K ⁻¹ (20 - 400 °C)	2.7x10 ⁻⁶
	°F ⁻¹ (68 - 660 °F)	1.5x10 ⁻⁶
Thermal conductivity	W/mK (20 - 400°C)	2.5
	BTU-in/hr-ft ² -68°F	17.3
Max. application temperature	°C	1200
	°F	2192
Max. thermal shock resistance	K/h	300
	°F/h	540
Wear resistance acc. ASTM C704-15	cm ³ with 90° angle	≤ 3.8
Wear resistance acc. DIN 52108	cm ³	1.5 - 2
Wear erosive resistance	min/cm ³	165
Cast shrinkage	Vol %	0.2
Compressive strength	MPa	180
Flexural strength	MPa	17

Approximate figures are given for all technical data. They are based on assessment of tests on specific samples and cannot be considered as a guarantee for which Kalenborn would have to assume legal responsibility. Subject to technical changes and errors.

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Installation

- This material will be particularly useful for protecting flat surfaces against wear or if formwork can be used.
- KALCRET BTY can either be applied at the Kalenborn plant or at the site.
- For safe installation a comprehensive range of tools and equipment is available for installation as well as a detailed instruction on https://www.kalenborn.com/fileadmin/Redakteur/PDF/EN/EN_Usermanual_KALCRET.pdf

Advantages

- Castable for large plant components
- Very high abrasion resistance and compressive strength
- High erosion resistance
- Resistant to very high temperatures
- Continuous lining
- Fast lining
- By short start-up and reaction times a quick application is possible

Applications from energy and the environment, cement and building materials, iron and steel, mining and other industries

bunkers

channels

chutes

cyclones

deviation hoods

dust collecting ducts

gas purifying systems

hoppers

hydraulic conveying systems

pipe bends

pipes

pneumatic conveying systems

separators

silos

vessels

Due to the manufacturing process, it is not possible to exclude small variations in the properties of the product. They also include typical characteristics of hydraulically setting products like temperature- and application-related fluctuations of the working, hardening, and product properties. With prefabricated elements these variations may include, but are not limited to tolerances of dimension, surface finish, chipping, voids, porosity, and hairline fractures.

