

KALCRET BNX

Hard Compound

Material data sheet

Material description in general

KALCRET BNX is a trowelled, cement-bonded hard material compound for seamless protection of plant components. The material on the base of bauxite has a very high abrasion resistance and compressive strength. KALCRET BNX is easy and quickly to use and ensures fast availability of plant components. KALCRET BNX is offered in bags-supply or as individual shape. KALCRET BNX is optimized for wear protection.

Characteristics of the installed material

Feature	Unit	Data
Hard material content	Wt.-%	70
Density	g/cm ³	2.7
	lb/ft ³	169
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	400
	°F	752
Max. thermal shock resistance	K/h	300
	°F/h	540
Wear resistance acc. ASTM C704-15	cm ³ at 90° angle	≤ 4.0
Wear resistance acc. DIN 52108	cm ³ /50 cm ²	1.5 - 2
Wear erosive resistance	min/cm ³	100
Cast shrinkage	Vol. %	0.2
Compressive strength	MPa	200
Flexural strength	MPa	25

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

- KALCRET BNX trowelled compound allows protection of horizontal, vertical, inclined and curved surfaces.
- Overhead working is easily done.
- KALCRET BNX 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

- Highly resistant to abrasion and compressive stress
- High erosion resistance
- Continuous lining
- Resistant to high temperatures
- 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.

