KALCRET CNX

Hard Compound

Material data sheet

Material description in general

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

Characteristics of the installed material

Feature	Unit		Data
Hard material content	Wt.-%		70
Density	g/cm³		3.0
	lb/ft³		187
Thermal coefficient of expansion	K^{-1}	(20 - 400 °C)	3.3×10^{-6}
	$°F^{-1}$	(68 - 660 °F)	1.8×10^{-6}
Thermal conductivity	W/mK	(20 - 400°C)	3.3
	BTU-in/hr-ft²-68°F		22.9
Max. application temperature	°C		400
	°F		752
Max. thermal shock resistance	K/h		300
	°F/h		540
Wear resistance acc. ASTM C704-15	cm³ at 90° angle		≤ 4.5
Wear resistance acc. DIN 52108	cm³/50 cm²		0.5 - 1
Wear erosive resistance	min/cm³		200
Cast shrinkage	Vol. %		0.2
Compressive strength	MPa		160
Flexural strength	MPa		20

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

- Excellent resistant to abrasion
- High compressive and 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.