

Hard and Readily Available ...

KALPOXY-150
Epoxy bonded Hard Compound



KALPOXY-150 is a highly wear resistant epoxy bonded hard compound that can be rapidly and effectively used for lining structural components and for repairs. Excellent wear properties are achieved after short curing time.

KALPOXY-150 has been especially developed to solve numerous wear problems that occur in actual practice. Almost any surface and shape – even complex locations that are difficult to reach – can be reliably coated thanks to the very good handling properties and the high contact power.

Overhead installation of KALPOXY-150 is feasible without any problem.

KALPOXY-150 has excellently stood the test for many applications. Apart from standard lining of, e.g. pipe systems, vessels, chutes, cyclones, conveying systems, etc., especially prematurely worn surfaces of system components can be repaired rapidly, easily and within minimum downtimes.

KALPOXY-150

Epoxy bonded Hard Compound

Epoxy Resin Matrix

The selective use of hard mineral materials (corundum) combined with the heavy duty epoxy resin matrix enable KALPOXY-150 systems of varying layer thickness thereby ensuring an efficient and simple protection of locations that are subject to particular stress.

Easy Working

The material can be worked at the site by the customer's staff with simple tools at low cost. After mixing, KALPOXY-150 is applied at the desired thickness with the aid of a trowel and the surface smoothed, if required. It is not necessary to provide for reinforcing, e.g. in the form of a wire mesh.

Short Curing Periods

KALPOXY-150 hardens at room temperatures of 20 °C / 68 °F during approx. 8 hours. It can be used up to application temperatures of 150 °C / 302 °F.



Typical Fields of Application

Applications

- bunkers
- channels
- chutes
- cyclones
- deflection hoods
- dust collecting channels
- gas cleaning systems
- hoppers
- hydraulic conveying systems
- loading stations
- pipe bends
- pipes
- pneumatic conveying systems
- separators
- silos
- tanks
- transport systems
- troughs

Industries

- aluminum smelters
- cement industry
- chemical industry
- coal mining
- coal fired power plants
- foundries
- glassworks
- handling systems
- mineral processing
- mineral wool production
- mining / mines
- non-ferrous metal recovery
- ore mines
- ore processing
- recycling facilities
- recycling facilities
- refuse incineration plants
- steel / iron

Top:

The compound is made ready for use by intense mixing of the constituents, i.e. resin/hard material and hardener at the specific mixture ratio.

Bottom:

KALPOXY-150 is simply applied at the desired layer thickness with a trowel and then smoothed, if required. Working overhead is possible without any difficulty as well. No reinforcing has to be fitted.

Product Properties

- 2-component system
- high wear resistance
- jointless lining
- simple handling
- even suitable for complex geometries
- can be worked horizontally, vertically and overhead

Technical Specification KALPOXY-150

- hard material particle size 1 ... 3 mm
- density 2.1 g/cm³
- ultimate compressive strength 90 Mpa
- ultimate bending tensile strength 25 Mpa
- hard material portion 73 %
- working time after mixing 30 minutes (at 20 °C / 68 °F)
- application thickness 5 ... 40 mm
- application temperature 150 °C / 302 °F
- mechanically loadable after 8 h (at 20 °C / 68 °F)

Abrasion Resistance

KALPOXY-150 has displayed excellent abrasion resistance in actual practice. The material hardness corresponds to grade 8 in the Mohs hardness scale. During direct wear tests based on ASTM C704 it turned out that the abrasion resistance is above that of ABRESIST fused cast basalt and of KALCRET cement bonded hard compound.

General Working Instructions

Preparing the Subsurface

The subsurface must be clean, free of dust and dry. Roughening (sandblasting, brushing) the contact surface will enhance the adhesive strength.

Preparation

- ambient temperature during mixing and preparation: 10 – 30 °C / 50 – 86 °F
- temperature of product and structural component: 10 – 30 °C / 50 – 86 °F
- mixture ratio (resin/hard material : hardener): 2.76 : 1
- mixing period minutes: 4 to 6
- working period: 30 minutes

The KALPOXY-150 2-component system is offered at pre-dosed packages to ensure easy handling. The compound is prepared for working by intense mixing of the constituents made up of resin/hard material and hardener at the specified mixing ratio. Optimal results will be obtained provided resin/hard material and hardener are mixed separately first in order to eliminate segregation, if any.

Delivery and Storage

- package sizes: 5,45 kg KALPOXY-150 hard material and hardener
- storage: 12 months (dry at 15 °C / 59 °F)
On storage for more than 12 months in an appropriate environment, KALPOXY-150 can remain usable.
A review by Kalenborn is recommended.

Safety data sheets available on request or with every first supply