

# KALPOXY Convenient Wear Protection

## Epoxy Bonded Hard Compound

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KALPOXY is a highly wear resistant epoxy bonded hard compound with a short cure time, that can be effectively used for lining structural components and for repairs. KALPOXY is designed to solve wear problems that occur on almost any surface and shape. These surfaces can be protected easily due to the very good handling properties and the high contact power of KALPOXY, even overhead. KALPOXY has proven performance in piping, vessels, chutes, cyclones, conveying systems, etc. Prematurely worn surfaces of system components can be repaired rapidly, easily and with a minimum of downtime.

The selective use of corundum hard minerals combined with the heavy duty epoxy resin matrix enables KALPOXY to provide an efficient and simple protection for areas subject to severe abrasion.

### Easy Working

The material can be mixed on site with simple tools at low cost. After mixing, KALPOXY is applied by trowel to the desired thickness 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 cures completely at 68°F / 20°C in approximately 24 hours. It can be used in applications up to 176°F / 80°C.

### Product Properties

- Two-component system
- High wear resistance
- Jointless lining
- Simple handling
- Easily installed horizontally, vertically or overhead

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### 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: 50-86°F/10-30°C
- Temperature of product and structural component: 50-86°F/10-30°C
- Mixture ratio (resin/hard material: hardener): 9.75 : 1
- Mixing period: 4 to 6 minutes      ■ Working period: 30 minutes

The KALPOXY two-component system is offered at pre-measured packages to ensure easy handling. The compound is prepared by intense mixing of the components in the specified mixing ratio. Optimal results will be obtained if the resin/hard material and hardener are mixed separately first in order to eliminate segregation, if any.

#### Delivery and Storage

- Package sizes: 18.9 lbs / 8.6 kg or 9.4 lbs / 4.3 kg
- Coverage: 2.9# / 1.3 kg per sq. ft. @ 1/4" thick
- Storage: 12 months (dry at 59°F/15°C)

### KALPOXY Properties

<b>Hard material particle size</b>	1...3 mm (.04" - .12")
<b>Density</b>	2.2 g/cm <sup>3</sup> (140 lbs/ft <sup>3</sup> )
<b>Ultimate compressive strength</b>	80 Mpa (11,600 psi)
<b>Ultimate bending tensile strength</b>	25 Mpa (3,625 psi)
<b>Hard material portion</b>	73%
<b>Working time 30 min. after mixing</b>	20° C / 68° F
<b>Application thickness</b>	5...40 mm (.2" - 1.6")
<b>Application temperature</b>	80° C / 176° F
<b>Mechanically loadable after 24h</b>	20° C / 68° F
<b>Hardness</b>	Mohs ~8



Working overhead is easily done

### Typical Fields

#### Applications

- Bunkers
- Chutes
- Cyclones
- Gas cleaning systems
- Hoppers
- Hydraulic conveying systems
- Pipe bends
- Pneumatic conveying systems
- Separators
- Silos
- Tanks
- Transport systems
- Troughs

#### Industries

- Aluminum smelters
- Cement industry
- Chemical industry
- Coal fired power plants
- Foundries
- Glassworks
- Mineral processing
- Mining wool production
- Mining/mines
- Ore processing
- Recycling facilities
- Refuse incineration plants
- Steel/iron



The Wear Protection People

A Kalenborn Company

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