

# Protecta kote

POLYURETHANE PROTECTIVE COATING



## INTRODUCTION

Protecta-kote is a unique ready-to-use polyurethane coating, which is easy-to apply, durable, flexible and non-slip. Protecta-kote will protect the surface from stone-damage, rust, petrol, most chemicals and acids.

Protecta-kote can be applied to vehicles, boats, ramps and walkways or any other application where an attractive, tough, non-slip finish is required.

Protecta-kote can be easily applied using a brush, foam roller or spray gun.

Protecta-kote is available in a variety of colours in either non-slip or smooth finish texture.



# Protecta kote

## POLYURETHANE PROTECTIVE COATING

### PRODUCT FEATURES

- **Single Component**  
Protecta-kote is single component polyurethane, which means that no mixing or blending is required prior to application. Protecta-kote does not require specialized application equipment that twin-component systems require. As a single-component system it is ready to use making it ideally suited to being sold as a DIY or retail product.
- **Polyurethane technology**  
Polyurethane's offer a great deal of advantages over other coating systems such as epoxy's and acrylics. Polyurethane's chemically bond to the painted surface leaving an extremely tough coating, which will not wear or peel. Polyurethane's also bond to a number of surfaces including metal, concrete, wood, fiberglass, plastic and rubber. Polyurethane's are extremely flexible and elastic so that the coating will bend and flex with the substrate and not flake or peel. This flexibility is particularly important in automotive applications and other areas where there are vibrations.
- **Ready-to-use, Easy to Apply**  
Protecta-kote is sold ready-to-use and requires no mixing or blending of components. Simply prepare the surface, roll or spray on the Protecta-kote and allow to dry.
- **Tough non-slip finish**  
Protecta-kote is formulated using rubber granules that give it an attractive textured-non slip finish. This makes Protecta-kote ideal for use on stairs, walk ways and floors as well as boat decks.
- **Non Abrasive**  
Because Protecta-kote is formulated from Polyurethane and rubber granules it is non abrasive. This means that Protecta-kote does not have the sandpaper like feel of other non-slip coatings. Protecta-kote will not damage or scratch any goods that be placed on it. Being non-abrasive it will also not wear down like other coatings.
- **Bonds to most surfaces**  
Protecta-kote can be applied to almost any surface including metal, wood, concrete, fiberglass, plastic and rubber. This makes Protecta-kote suitable for a wide number of applications.

- **Prevents rust and corrosion**  
Because Protecta-kote chemically bonds to the substrate it will prevent the surface from corroding
- **Resists gasoline, acids, solvents and other chemicals**  
Protecta-kote will resist the surface from gasoline, acids, solvents and most chemicals making it ideal protection for vehicles, boats and factory floors.
- **Easy to repair**  
Protecta-kote is easy to repair, simply paint over with new Protecta-kote.
- **Available in a range of colours**  
A limited range of standard colours are available. Specific colours can be made up on request

## **PRODUCT ADVANTAGES**

<b>One Part</b>	No mixing of components required
<b>Totally Flexible</b>	Will not flake, chip or peel
<b>Repairable</b>	Bonds to itself
<b>Easy to apply</b>	No specialized equipment needed
<b>Protection</b>	Resists water, rust, acids and chemicals
<b>Economical</b>	Lasts for years and costs less
<b>Versatile</b>	Can be applied to metal, wood, concrete, fiberglass Aluminium, plastic and rubber
<b>Durable</b>	Plyurethanes are stronger, more flexible and have better impact and abrasion resistance than other coatings making them more durable.

## **SUGGESTED APPLICATIONS:**

- Pickup Truck Bed liners
- Trucks and delivery vehicles
- Buses and trailers
- Caravan roofs and showers
- 4 x 4's and recreational vehicles
- Hydraulic tail lifts
- Underbody and wheel arch protection



- Boat decks
- Shipping docks and ramps
- Stowage areas
- Showers and wet areas



# Protecta KOTE

## Safety

- Accessibility ramps and walkways
- Fire Exits
- Detectable warning systems
- Work areas
- Industrial and kitchen floors
- Train platforms
- Stairs



## APPLICATION INSTRUCTIONS

### EQUIPMENT

The following equipment is recommended for PROTECTA-KOTE application: Polypropylene stippled foam roller, paint brush, scouring pad, roller tray, rubber gloves, paint mixer drill attachment or stirring rod, wide masking tape, clean-up rags and xylene, acetone, MEK or a cleaning detergent.

### INSTRUCTIONS

1. Stir Protecta-Kote very well before use, keeping the rubber crumbs in suspension. Use a mixer drill attachment if available otherwise use a stirring rod. Stir for at least 3 minutes just before beginning the application and stir occasionally during the application.
2. Remove vehicle tailgate if it is likely to be an obstruction.

3. Clean heavy dirt and grime from the truck bed or other surface using Xylene or Acetone. Alternatively water with an alkaline (only) domestic detergent may be used.
4. Allow the surface to dry completely.
5. All painted surfaces where PROTECTA-KOTE is to be applied should be roughened with a scouring pad or medium grit sandpaper leaving no glossy areas.
6. Blow or dust the sanding dust away and wipe the surface down with xylene or acetone only. Do not use any other solvents. ENSURE THAT WHEN YOU ARE WORKING IN A WELL VENTILATED AREA AND ARE WEARING GLOVES
7. Leave to dry.
8. Old paintwork requires special attention: Loose paint must be completely removed, Rust must be removed to bare metal and primed before application of PROTECTA-KOTE, Clean and roughen remaining paint as per new paint (above).



## APPLICATION INSTRUCTIONS CONTINUED

9. Use masking tape and paper sheets to cover any areas which you wish not to be coated including latch bolts and drain holes. Ensure that you have clean-up solvents and rags in easy reach. Immediately remove PROTECTA-KOTE spills, drips and spots made while painting with xylene.
10. Stir Protecta-kote very well (For best results use an electric drill with a stirring attachment).
11. Protectakote may be thinned with up to 10% Xylene if it thickens after opening. Do not use any other solvents.
12. Using a paintbrush, paint corners, seams and difficult areas first. Dab PROTECTA-KOTE on rather than painting it on like paint.
13. Begin applying the first coat of Protecta-kote using the foam roller provided. For best results apply the first coat in one direction and complete each coat without break. Do not apply too thickly as "mud-cracking" will appear. Try to avoid allowing the Protecta-kote to clump or run. Clean up any spills immediately.

14. Between coats, keep brush and roller moistened with xylene and protect for later use or discard and use a new one.

15. Stir the Protecta-kote again before starting the second coat.

16. Apply the second coat as soon as the first coat is tack free (2-6 hrs depending on conditions). Apply at 90° (perpendicular) to the first coat for a more even finish. Poor inter-coat adhesion will result when the second coat is applied after the first coat has fully cured. If the first coat has fully cured the surface must be abraded with 180 grit sand paper before applying the second coat.

17. Remove masking tape as soon as the second coat has been applied using a Stanley blade to prevent tearing.

18. The vehicle will be ready for light use in 6 - 9 hours. Full cure will take 48 hours so avoid placing heavy articles onto the painted surface for this period.

## **APPLICATION TO SPECIFIC SURFACES**

If in any doubt please test the adhesion of PROTECTA-KOTE by applying a test patch.

### **UNPAINTED STEEL**

- Rust must be removed down to the bare metal.
- Steel should be roughened, cleaned and primed with Duram Metcote or a recommended two component epoxy primer or polyurethane primer.

### **GALVANISED STEEL**

- It is essential that galvanized steel is cleaned and abraded until it is 'water-break free'. In this state, when wet, water will form a thin film that will not retract at the edges or break or bead at all, even on vertical standing.
- Cleaning can be done with a scouring pad and an alkaline (only) domestic detergent. Certain 'Galv Cleaners' are also effective at producing a 'water break free' surface.
- Rinse well with water.
- Prime with Duram Metcote or a recommended two-component epoxy primer, according to the manufacturers instructions.

### **FIBREGLASS**

- Unweathered fibreglass and gel-coats must be free of oils, waxes, polishes etc. then sanded to remove all gloss and immediately primed.
- Prime with Duram Metcote or a recommended two-component solvent based epoxy primer, according to the manufacturers instructions.

## **WOOD**

- Wood should be free from oils, waxes and polishes and lightly sanded to expose fresh wood and the surface roughened.

## **ALUMINIUM**

- Freshly roughened surfaces should be immediately primed with Duram Metcote or an aluminium/one component polyurethane compatible primer.

## **CONCRETE**

- Brush-finished or hand-troweled is best.
- Ensure that concrete is at least 28 days old and is clean, dry and oil free.
- Prime with a water or solvent based, two-component, epoxy primer.
- Old concrete needs special attention as recommended by the epoxy primer supplier.

## **WARNINGS AND CAUTIONS**

Protecta-kote contains flammable solvents. It bonds to skin, clothing etc. and is very difficult to remove once cured. Use this product in a well-ventilated area and avoid breathing solvent vapours. Always wear rubber gloves and protective clothing.

Protecta-kote must be protected from moisture. Whenever possible keep lid tightly closed.

Protecta-kote can be diluted with xylene if necessary. Xylene may also be used to clean rollers and clean-up spills.

Acetone can be used for cleaning surfaces but not for diluting Protecta-kote.

Do not use methylated spirits, lacquer thinners, white spirits or other solvents. They will permanently prevent PROTECTA-KOTE from curing.

## **SPRAY APPLICATION**

Protecta-kote can be sprayed using a simple shutz (or underbody) gun and compressed air. Protecta-kote for spray applications is supplied in a customized one litre can that is designed to attach directly onto the spray gun. These spray-guns can be purchased from Zest Polyurethanes.





## **SPRAY EQUIPMENT**

The following equipment is recommended for PROTECTA-KOTE spray application: Xylene for cleaning and dilution, scouring pad and/or medium grit sandpaper, rubber gloves, paint mixer drill attachment or stirring rod, masking tape, and clean-up rags and standard air compressor. Spray pressure of 3-5 bar (40-50 psi) is required. The use of a respiratory mask to prevent solvent inhalation is recommended.

## **TECHNICAL INFORMATION**

### **APPLICATION**

PROTECTA-KOTE is a one component polyurethane that can be easily applied by roller, brush or spray to provide an attractive non-slip coating. Unlike other coatings it is non-abrasive and so does not damage goods.

### **CURING TIME**

Depending on temperature and humidity PROTECTA-KOTE can normally be put into service in approximately 12-24 hours. An accelerator is available for cold weather applications where a faster cure is required. Final chemical resistance and physical properties are reached in 4-7 days.

### **COVERAGE**

1.2-1.5m<sup>2</sup> / litre for normal applications.  
0.5m<sup>2</sup>/litre for high wear applications.

### **COLOURS**

Protecta-kote is available in a variety of standard colours including black, grey, red and blue. Please refer to our colour standard booklet for complete details. As with all aromatic polyurethane's, colours darken with U.V. exposure and gloss is lost with time. Light-stable versions are also available in light and dark colours. See section on Protecta-kote UVR for details on the light stable version.

## OVERCOATING AND REPAIRS

PROTECTA-KOTE can easily be repaired or over coated after cleaning and sanding the surface.

## SURFACE FINISH

PROTECTA-KOTE has a glossy finish and can be applied to give a relatively smooth or rough finish.

## SHELF LIFE AND POT LIFE

PROTECTA-KOTE has a shelf life of 1 year from date of manufacture and is best used within 24 hrs from first opening.

## STORAGE

Store indoors between 15-25°C out of direct sunlight. Excessive temperature will cause thickening.

## CO-EFFICIENT OF FRICTION (ASTM D1894) (g/g) 200g sled

	DRY		WET		OIL (SAE 30)	
	Static	Kinetic	Static	Kinetic	Static	Kinetic
Black	1.7	1.4	1.2	1.1	2.0	1.1
Grey	1.7	1.4				

## TENSILE STRENGTH (ASTM D638)

	Tensile strength at break (MPA)
7 day cured	11-15
After 500 hrs QUV (n=4)	11-15

## ELONGATION (ASTM D638)

	ELONGATION (%)
7 day cured	330 – 400
After 500 hrs QUV (n=4)	330 – 400

## UV RESISTANCE

500 hrs of QUV accelerated weathering resulted in no deterioration in physical properties and no surface cracking. There will however be a loss of gloss and colour with continued exposure.

## IMPACT RESISTANCE

Due to its excellent flexibility, PROTECTA-KOTE has the ability to stay bonded to substrates even when they are deformed by impact.

## CHEMICAL RESISTANCE

The following table gives the results of full immersion of Protecta-kote for seven (7) days in some common chemicals:

CHEMICAL	SOLUTION %	RATING
Sulfuric Acid	2	Excellent
	10	Good
	20	Good
Acetic Acid	2	Excellent
	10	Excellent
	20	Good
Hydrochloric Acid	2	Excellent
	10	Excellent
	20	Good
Phosphoric Acid	2	Excellent
	10	Excellent
	20	Excellent
Sodium Hydroxide	2	Excellent
	10	Good
	20	Good
Ammonia	2	Excellent
	10	Good
	20	Good
<b>SOLVENTS</b>		
Petrol	100	Fair
Acetone	100	Poor
Diesel	100	Good
Potable Water	100	Excellent
Salt Water	100	Excellent

## ACCELERATOR

A liquid accelerator can be used to reduce the drying and curing time by up to 75% depending on the climatic conditions.

This may be helpful in areas of low temperature or low atmospheric moisture or in circumstances such as with production lines where down time is critical. The accelerator is not recommended in warm humid conditions.

The accelerator is supplied in pre-measured sachets and should be mixed into the PROTECTA-KOTE immediately prior to use. The addition of the accelerator will significantly reduce the pot life of the PROTECTA-KOTE

## **SILICA ADDITIVE**

For added slip resistance, particularly in wet conditions, a 230 silica additive can be added and mixed into the Protecta-Kote immediately prior to application.

The silicon additive is supplied in pre-measured packets. Due to the increased abrasiveness of the silica, this additive may reduce the life span of the PROTECTA-KOTE.

## **METCOTE ETCH PRIMER**

METCOTE™ is a specially formulated etch primer that can be used on iron, steel, aluminium, fiberglass, and galvanized steel. Metcote is an ideal metal primer for use with Protecta-kote.

## **PRODUCT USES**

- Primer for Protecta-kote.
- Primer for all metal and fibreglass surfaces.
- Heat resistant

## **ADVANTAGES**

- Excellent adhesion to metal.
- Quick drying (30 mins at 25°C).
- Can be topcoated with most paints after 2 hours.
- Heat resistant up to 220°C
- Good acid, alkali and water resistance.