

## INTRODUCTION

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

Protecta-kote can be applied to vehicles, boats, floors, ramps and walkways or any other application where an attractive, tough, anti-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 with an anti-slip texture.

## 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 as a DIY product when the result will be an industrial grade coating.
- **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, fibreglass, 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 blending of components. Simply prepare the surface, roll or spray on the Protecta-kote and allow to dry.
- **Tough anti-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 anti-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, fibreglass, 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 petrol, acids, solvents and other chemicals** Protecta-kote will protect 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 ProtectaKote after minimal preparation.
- **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, fibreglass, aluminium, plastic and rubber
<b>Durable</b>	Polyurethanes are stronger, more flexible and have better impact and abrasion resistance than other coatings making them more durable.

## SUGGESTED APPLICATIONS:

### Automotive

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



### Marine

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



### Safety

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



## 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 Metcote or a recommended two component epoxy primer or polyurethane primer.

### GALVANIZED 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 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 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 Metcote or an aluminium/two component polyurethane compatible primer. Do a test patch.

### CONCRETE

- Brush-finished or hand-troweled concrete gives best adhesion.
- Ensure that concrete is at least 28 days old and is clean, dry and oil free.
- Power floated and very smooth concrete will need to be acid etched to promote adhesion.
- If necessary clean concrete with a suitable de-greaser.
- 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 your supplier.

## 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 anti-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 change with U.V. exposure and gloss is lost with time. Light-stable versions are also available in light and dark colours and are designated UVR.

### 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
<b>Black</b>	1.7	1.4	1.2	1.1	2.0	1.1
<b>Grey</b>	1.7	1.4				

**TENSILE STRENGTH (ASTM D638)**

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

**ELONGATION (ASTM D638)**

	ELONGATION (%)
<b>7 day cured</b>	330 – 400
<b>After 500 hrs QUV (n=4)</b>	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
Sulphuric 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

## **ANTI-SLIP 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.

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, fibreglass, 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 top coated with most paints after 2 hours.
- Heat resistant up to 220°C
- Good acid, alkali and water resistance.

## **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 ProtectaKote.

Please select the correct accelerator for the PROTECTA-KOTE you are using.

# **STANDARD ACCELERATOR**

## **GENERAL DESCRIPTION**

**ProtectaKote Accelerator** is a pure, solvent free catalyst used to speed up the drying time of ProtectaKote non-slip and smooth coatings.

**Composition** ProtectaKote Accelerator is based on Di-N-butyltindilaurate.

**Typical Properties** ProtectaKote Accelerator has the following typical properties:

<b><u>Property</u></b>	<b><u>Analysis</u></b>
Appearance:	Clear, amber liquid
Flash point:	>150°C
Freezing Point:	<-15°C
Odour:	Mild, characteristic
SG @ 20°C (g/cm <sup>3</sup> ):	1.06 – 1.08
Viscosity:	Approximately 70cPs
Tin content:	Approximately 18%
Solubility:	Soluble in most organic solvents, Insoluble in water

**Applications** ProtectaKote Accelerator promotes the moisture cure of ProtectaKote coatings.

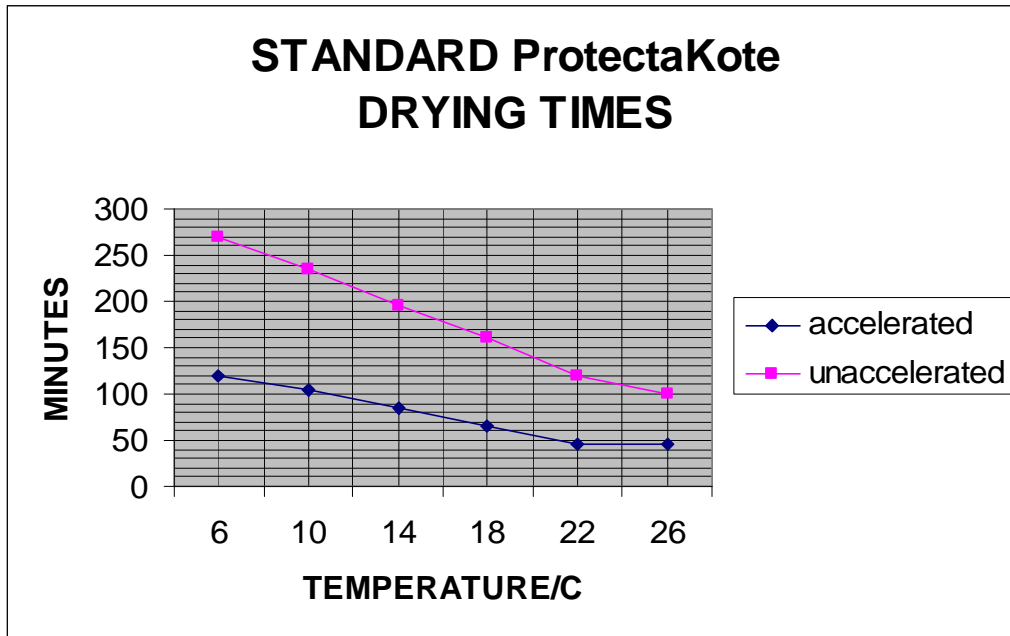
**Method of use:** ProtectaKote Accelerator is added to ProtectaKote coatings at the rate of 3ml per litre/quart in order to counter the slow cure found at low temperatures.

**Storage:** Keep sachet closed and protect from extreme temperatures. The shelf life is approximately 6 months.

## **When to use ProtectaKote Accelerator:**

The following table and graph shows drying times of ProtectaKote at various temperatures with and without the use of accelerator:

temperature/C	drying time/minutes	
	Accelerated	Unaccelerated
6	120	270
10	105	235
14	85	195
18	65	160
22	45	120
26	45	100



## D-18 Accelerator for ProtectaKote UVR

### DESCRIPTION

D-18 Accelerator is a liquid second component which may be added to ProtectaKote UVR if desired to increase the rate at which the product cures at low temperatures or humidity. D-18 Accelerator is not intended for use at normal room temperatures.

### ADVANTAGES

- low viscosity aids dispersal
- cure times at temperatures less than 15<sup>0</sup>C/60<sup>0</sup>F are significantly reduced.

### CONSIDERATIONS

- the shelf life of the paint is considerably reduced after addition
- only add just prior to use
- protect from moisture before use
- ensure that the correct dosage is added (see below)
- only add if the temperature of the paint is below 15<sup>0</sup>C / 60<sup>0</sup>F
- D-18 Accelerator is not for use with regular ProtectaKote
- Use at higher than recommended temperatures will lead to premature gelation in the tin and defects in the coating

### STANDARD ADDITION LEVELS

- 80ml of D-18 Accelerator is normally added to a 4 litre of ProtectaKote UVR to reduce the drying time
- 20ml of D-18 Accelerator is normally added to a 1 litre of ProtectaKote UVR to reduce the drying time

## INSTRUCTIONS FOR USE

Ensure that your ProtectaKote UVR tin is colder than 15°C.

D-18 Accelerator is supplied in pre-weighed bottles. Ensure you have the correct pack size for the product to be accelerated.

After mixing the ProtectaKote UVR extremely well to re-disperse the rubber and resin in the solvent, mix in the accelerator. The product must be used immediately.

## TECHNICAL DATA

- Form	Liquid	
- Colour	Clear	
- Odour	amine-like	
- Melting temperature	about -50°C	
- Boiling temperature (70 hPa)	about 200°C	
- Flash point	>200°C	DIN 51758
- Ignition temperature	>200°C	DIN 51794
- Vapour pressure (mm Hg at 21C (70F)	0.29 hPa	
- Density (25°C)	0.85 g/cm <sup>3</sup>	
- Solubility in water (20°C)	not miscible	
- pH value (20°C)	alkaline	
- Viscosity (dynamic at 200°C)	<80 mPa	

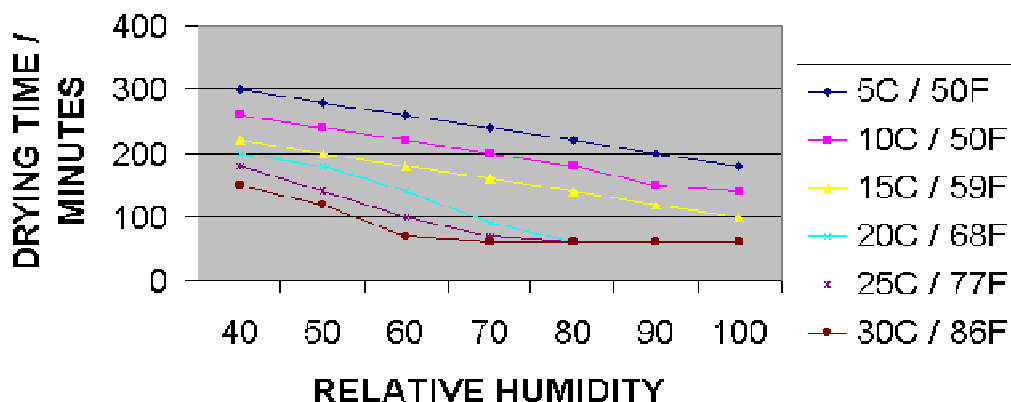
## CONDITIONS REQUIRING ACCELERATOR

The following drying times are typical for the unaccelerated product, to assist users to determine when accelerator will be required.

### DRYING TIMES IN MINUTES

HUMIDITY	5C/41F	10C/50F	15C/59F	20C/68F	25C/77F	30C/86F
40	300	260	220	200	180	150
50	280	240	200	180	140	120
60	260	220	180	140	100	70
70	240	200	160	90	70	60
80	220	180	140	60	60	60
90	200	150	120	60	60	60
100	180	140	100	60	60	60

### D-18 (RUBBERISED) DRYING TIMES



*Technical details above are provided in good faith. We and our Products are manufactured to the highest standards by an ISO 9001 2000 registered company using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that user conduct his/her own suitability tests before use.*

**Got Rust?**

**We can help with VACTAN.**

## **VACTAN RUST CONVERTER**

**VACTAN** is for the treatment of corroded steel and iron surfaces.

**VACTAN** neutralises the corrosion process.

**VACTAN** passivates the surface.

**VACTAN** is self-priming.

**VACTAN** has been designed for application by spray and brush.

**VACTAN** can be applied over damp surfaces.

**VACTAN** will be touch dry in approximately 10 minutes at 20°C.

**VACTAN** may be coated when cured with any conventional paint.

**VACTAN** has been tested and certified.

**VACTAN** is non-flammable.

**VACTAN** can be regarded as essentially non-hazardous.

**VACTAN** can be used in the following areas:

Manufacturing, Agriculture, Automotive, Local Authority, Road Haulage, Chemical, Marine, Heavy Engineering, Building and Construction, DIY, etc.