



Protectakote

Smartkote Protectakote is a single component, ready-to-use, anti-slip coating with polyurethane performance for ultimate toughness. The course profile textured surface is ideal for interior floors, factory work-stations, walkways, stairs, ramps, vehicles and other areas where a flexible, durable and long lasting anti-slip surface is important. **Protectakote** is ready-to use, easy to apply by brush, roller or spray and is available in a variety of colours as well as a smooth version for maintenance coats.

PRODUCT USES

- **Protectakote** is suitable for interior and exterior use, however for extended life in extreme outdoor conditions **Protectakote UVR** is recommended.
- **Protectakote** can be applied to: metal, concrete, wood, fibre-glass, PVC, rubber, glazed tiles and previously painted surfaces.
- **Protectakote** can be used to create safe, anti-slip areas on:
 - Industrial and commercial floors.
 - Walkways, stair edges and bridges.
 - Wheelchair access ramps, emergency exits, fire escapes and around machinery.
 - **Protectakote** can be used as an automotive coating to protect load beds, tail lifts, chassis and wheel-arches of 4x4's, trucks, commercial vehicles and trailers.
 - Smooth finish is ideal as a protective coating for indoor flooring applications and can also be used to refurbish textured areas without adding more profile.

COVERAGE

- 3m² per litre per coat. Applied in a 2 coat application. Giving an overall coverage of 1.5 m² per litre.
- Three coats are recommended for high wear areas.
- Coverage will vary depending on the porosity and profile of the surface.

SURFACE PREPARATION

Ensure all substrates are thoroughly dry, clean, sound and free from any contaminants such as dirt, rust, salt, algae and grease.

Protectakote exhibits good adhesion to most primers. All non-porous substrates with the exception of painted surfaces require a primer. Zest Polyurethanes supplies suitable primers for all substrates - consult us for our range of primers.

Substrates differ significantly, and so all new applications should be tested for adhesion first.

- **Steel:** Abrade surface lightly and remove any surface rust or mill scale by sanding, wire brushing, with a chipping hammer or sandblasting. Prime with **Protectakote 2K Metal Primer** or **Protectakote Universal Epoxy Primer**, as per instructions, within 30 minutes.

FINISH

- Gloss
- Available in a smooth finish or textured anti-slip finish

COLOURS

- A range of standard colours available.

ADVANTAGES

- Single component – ready to use direct from can.
- Easy to apply – no skilled labour required.
- Fast drying - Drying time can be accelerated if necessary.
- Polyurethane performance – ultimate toughness.
- Course rubber crumb texture.
- Flexible – won't chip, flake or peel even at low temperatures.
- Excellent resistance to abrasion, chemicals and solvents.
- Weather resistant.
- Prevents rust and corrosion.
- Excellent capacity to repel water.
- High adhesion to most surfaces including metal, concrete, wood, fibreglass, PVC and rubber.
- Can be overcoated and easily repaired.
- Will not taint water or food once cured
- Lead & heavy metal free.

- **Galvanized Iron:** Clean away grease and dirt with a suitable galvanized iron cleaner until a water break-free surface is attained. Rinse well with water and allow to dry. Prime with **Protectakote Universal Epoxy Primer** the same day as the surface was prepared to avoid re-contamination and flash rust.
- **Aluminium:** Abrade to fresh metal, clean well using detergent. Prime with **Protectakote 2K Metal Primer** as per instructions within 30 minutes.
- **Concrete:** Allow new concrete at least 28 days to cure. Non-porous cement must be acid-etched, rinsed well and dried. Prime with **Duram Duraprime** epoxy primer as per instructions if weak, damp or oil contaminated.
- **Wood:** Abrade, clean and allow to completely dry before applying **Protectakote** directly. Dilute the first coat with 10% xylene to aid penetration.
- **Fibre-glass:** Abrade well, solvent wipe with xylene and apply **Protectakote** directly onto the surface.
- **PVC:** Abrade and clean well using xylene. Allow to dry before applying **Protectakote** directly. An adhesion test is recommended prior to use.
- **Rubber (nitrile or chloroprene):** Clean well using detergent or cleaning solvent such as xylene. Allow to dry. An adhesion test is recommended prior to use.
- **Glazed tiles:** Glazed tiles must be cleaned and treated with an organosilane primer eg. **Protectakote Clear Primer Treatment** for adhesion of **Protectakote**.
- **Gloss Paints and Varnish:** Abrade with a scouring pad or medium grit sandpaper to remove all gloss. Solvent wipe with xylene, allow to dry and apply **Protectakote** directly.
- **Motor Vehicles and Painted Metal:** Remove heavy dirt and rust. Previously painted surfaces need to be lightly abraded using a scouring pad or medium grit sandpaper to remove all gloss. Solvent wipe, allow to dry and apply **Protectakote** directly.

APPLICATION

- Take care when opening as contents may be under pressure.
- Wear safety goggles and protective gloves.
- After substrates have been prepared, ensure they are completely dry, tests for adhesion have been completed and areas not to be coated have been masked off.
- Stir well before use using a flat paddle.
- Always apply a test patch of **Protectakote** to ensure the substrate has been properly prepared and primed. Check adhesion of the coating by cutting a small X in the coating using a utility knife. Firmly apply a piece of packaging tape over the centre of the X cut, then pull off with a fast snap. The adhesion is suitable if no significant coating is removed beyond the X cut. If the coating fails this test, then additional surface preparation is required – repeat the surface preparation steps above.
- **Brush-on:** **Protectakote** should be “laid” onto the surface with a brush (do not brush backwards and forwards as with an enamel paint). Two coats will result in a final dry film thickness of 0,6mm to 0,8mm. Second or subsequent coats should be applied at right angles to the previous coat. Intercoat time is approximately 2 hours, or when touch dry, depending on ambient conditions.
- **Roller:** If applied with a stipple roller, application is quicker and the final texture rougher with greater anti-slip characteristics. Follow same instructions as per Brush-on. Intercoat time is approximately 2 hours, or when touch dry, depending on ambient conditions.
- **Spray-On:** Dilute **Protectakote** with 10% xylene. Fill spray gun pot, and attach airline providing a minimum pressure of 5 bar. **Protectakote** should be applied in thin coats to prevent “mudcracking” during drying. Depending on the application, two or more coats can be applied. Ensure each coat is dry before applying the next coat. Intercoat time is approximately 2 hours, or when touch dry, depending on ambient conditions.
- **Curing time:** **Protectakote** cures with atmospheric moisture. The coating will be touch dry in about 2 to 4 hours and allowing light traffic after 9 hours. Full strength and chemical resistance is achieved in 4 to 7 days, but normally the coating can be put to use after 24 hours.
- **Accelerated cure:** In areas of low atmospheric moisture, temperature or when shorter curing times are required, an accelerator can be added. This is available from Zest Polyurethanes.
- **Overcoating and repair:** **Protectakote** can easily be repaired or overcoated. The old surface should be well cleaned and then abraded by wire brush or sandpaper, and damaged surfaces must be cut out to provide an area without loose edges. Follow application instructions. If **Protectakote** is left for more than 24 hours after coating, it should be abraded before recoating to aid intercoat adhesion. If correctly applied, **Protectakote** provides a seamless repair.

CLEANING

- **Uncured Protectakote:** Can be cleaned in its uncured state using a solvent such as xylene.
- **Cured Protectakote:** Can be removed with MEK (Methyl Ethyl Ketone), paint stripper or by mechanical means.

- Remove any spills immediately as **Protectakote** is very difficult to remove once cured.
- Use hot soapy water to clean the cured coating.

IMPORTANT

- Please read all instructions carefully before starting the project.
- Proper surface preparation is critical for successful application of **Protectakote**.
- Do not mix with water, thinners or any solvent containing water or alcohol. Alcohol will prevent **Protectakote** from curing, while water will cause it to foam and cure in the can.
- Protect from moisture and do not expose to temperatures above 50 °C.

SAFETY PRECAUTIONS

- **Solvents are toxic: Avoid inhalation – may cause coughing, lung irritation, headaches, dizziness or nausea.**
- **Protectakote is highly flammable in wet state: Use in a well-ventilated area to prevent the build-up of flammable solvent vapours. Observe all fire precautions and do not smoke, use flames or naked lights during application.**
- **Extinguishing media: Keep extinguishing powder, CO₂ or halones close-by during application.**
- **Wear safety goggles and protective gloves. Avoid contact with skin and eyes.**
- **Spray Application: Areas where spraying takes place should be clean and well ventilated. Use suitable respiratory safety equipment and protective clothing.**
- **Spillage/leakage: Do not empty into drains. Keep away from sources of ignition. Take up with absorbent material. Fill into sealable containers. Dispose of containers in accordance with local waste disposal legislation in your country.**
- **Skin contact: Remove contaminated clothing and wash skin thoroughly with soap and water.**
- **Eye contact: Flush immediately with water for 10-15 minutes and contact a physician.**
- **Respiratory problems: Remove affected person to fresh air immediately and contact a physician.**
- **Not for internal consumption. If swallowed, contact a doctor or poison control centre immediately. Do not induce vomiting. Drink water.**
- **Keep out of reach of children.**

TECHNICAL DATA

Pack size	1L & 4L Brush-On, 1L Spray-On & 4L DIY Kit		
Finish	Textured & Smooth finish		
Colour	Range of standard colours		
No of components	Single Pack		
Drying schedule @ 425 microns wet	@ 10°C	@ 20°C	@ 30°C
Tack free time	6 hours	3 hours	2 hours 15 min
Light traffic	18 hours	9 hours	6 hours 45 min
Full traffic	72 hours	36 hours	27 hours
Full cure	4-7 days depending on conditions		
To recoat	Minimum: 6 hours	2 hours 30 min	2 hours 15 min
	Maximum before re-preparation of the surface becomes necessary: 24 hours		
Volume Solids:	≥ 71%		
Weight Solids:	≥ 75%		
VOC Content	≤250g/litre as supplied		
Film tensile strength at break	16MPa		
Film elongation at break	225%		
Service Temperature	-30°C to 115°C		
Application temperature	10°C to 30°C (An accelerator is available for lower temperatures) Application to substrates in excess of 35°C is not advisable due to the potential for surface defects and porosity.		
Flexibility	Excellent		
Weathering	Excellent, not colour fast, may fade		
Density	1,03g/cm ³ (brush version)		
Viscosity	80 to 110ku (brush version)		
Soluble in	Xylene		
Flash point	27°C		
Explosive limits	Lower: 2,1 % by vol Upper: 11, 5% by vol		
Thermal decomposition	No decomposition below initial boiling point		
Hazardous reactions	Exothermic reaction with amines, alcohols, acids and alkalis in uncured state. Reacts with water forming CO ₂ . Closed containers may rupture owing to increase of pressure. Open pressurized containers carefully, to release pressure.		
Toxicity	Toxic in uncured state		
Thinning/clean up	Xylene		
Shelf Life	18 months unopened. Store indoors at 5 to 35°C.		
Storage Conditions	Cool, dry area below 25°C		

Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards 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 the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.

Updated: August 2017 (this supercedes all previous publications)