



# Protectakote UVR

**Smartkote Protectakote UVR** is a tough anti-slip aliphatic polyurethane coating, which forms a colour-fast, abrasion and weather resistant film. **Protectakote UVR** is single-component, ready to use and easy to apply. **Protectakote UVR** is easy to apply and ideal to create anti-slip areas on exterior and interior surfaces.

## PRODUCT USES

- **Protectakote UVR** can be applied to: metal, concrete, wood, fiberglass, PVC, rubber and glazed tiles.
- **Protectakote UVR** can be used for:
  - Protective linings for pick-up trucks and other commercial and military vehicles.
  - Anti-slip floors, walkways and stairs.
  - Floors and steps of transporters and busses.
  - Ramps for wheelchair access.
  - Exterior non-slip areas for playgrounds and schools.
  - Stairs, emergency exits and fire escapes.
  - Helicopter pads.
  - Non-slip areas around machinery.
  - Outdoor flooring applications.
  - Any other area where an anti-slip coating is required.

## COVERAGE

- 2m<sup>2</sup> per litre per coat. Applied in a 2 coat application. Giving an overall coverage of 1 m<sup>2</sup> per litre
- Coverage will vary depending on the porosity and profile of the surface.
- Three coats are recommended for high wear areas.

## SURFACE PREPARATION

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

**Protectakote UVR** 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.
- **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.

## 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.
- Tough and flexible polyurethane and rubber coating
- Excellent UV and weather resistance.
- Impact and abrasion resistant.
- Attractive anti-slip finish
- Prevents rust and corrosion.
- High adhesion to most surfaces including metal, concrete, wood, fiberglass, PVC and rubber.
- Can be overcoated or repaired.
- Resists many solvents, good chemical resistance to organic and inorganic acids.
- Drying time can be accelerated if necessary (low temperatures or time constraints).
- Lead and heavy metal free.

- **Wood:** Abrade, clean and allow to completely dry before applying **Protectakote UVR** directly. Dilute the first coat with 10% xylene to aid penetration.
- **Fibre-glass:** Abrade well, solvent wipe with xylene and apply **Protectakote UVR** directly onto the surface.
- **PVC:** Abrade and clean well using xylene. Allow to dry before applying **Protectakote UVR** 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 UVR**.
- **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 UVR** 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 UVR** 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 UVR** 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 UVR** 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 UVR** with 10% xylene. Fill spray gun pot, and attach airline providing a minimum pressure of 5 bar. **Protectakote UVR** 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 UVR** 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 UVR** 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 UVR** is left for more than 24 hours after coating, it should be abraded before recoating to aid intercoat adhesion. If correctly applied, **Protectakote UVR** provides a seamless repair.

## CLEANING

- Uncured **Protectakote UVR:** Can be cleaned in its uncured state using a solvent such as xylene.
- Cured **Protectakote UVR:** Can be removed with MEK (Methyl Ethyl Ketone), paint stripper or by mechanical means.
- Remove any spills immediately as **Protectakote UVR** 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 UVR**.
- Do not mix with water, thinners or any solvent containing water or alcohol. Alcohol will prevent **Protectakote UVR** 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 UVR 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, CO<sub>2</sub> 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	1 litre, 4 litre		
Tinting	Not recommended		
Volume solids	≥ 71%		
Weight solids	≥ 75%		
VOC (EPA method #24) textured	≤ 250g/l		
Shelf life	18 months unopened. Store indoors at 5°C to 35°C		
Thinning/clean up	Duram xylene		
Flash point	27°C		
Storage	Cool, dry area below 25°C		
Tensile strength at break	26MPa (ASTM D638)		
Elongation at break	600% (ASTM D638)		
Service temperature	-30°C to 115°C		
Abrasion resistance (Taber)	30.5 mg loss (ASTM D4060, 1000 cycles, 1000g load)		
Accelerated weathering	No change after 1000 hours QUV		
Coefficient of friction	1.21 (dry); 0.64 (wet)		
Exterior durability	~10 years depending on conditions		
Recommended spreading rate per coat	Wet: 425 microns, Dry: 300 microns		
Drying schedule @ 425 microns wet	@10°C	@20°C	@30°C
Tack free time	4 hours	2 hours	1 h 30 min
Light traffic	12 hours	6 hours	4 h 30 min
Full traffic	48 hours	24 hours	18 hours
Full cure	4-7 days depending on conditions		
To recoat:	Minimum: 4 hours	2 hours	1 h 30min
Note:	Maximum before re-preparation of the surface becomes necessary: 24 hours Application to substrates in excess of 35°C is not advisable due to the potential for surface defects and porosity. Above 45°C the drying may be impaired due to evaporation of the catalyst.		
Accelerator:	An accelerator is available for use below 10°C when extended drying times are undesirable. Use at higher temperatures can cause surface defects.		

*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: October 2015 (this supercedes all previous publications)

