

Protectakote UVR

Optima Coatings Protectakote UVR is a smooth or anti-slip aliphatic polyurethane coating, which forms a colour-fast, abrasion and weather resistant film with exceptional strength. Protectakote UVR is single-component, ready to use and easy to apply. Protectakote UVR is ideal for use as an anti-slip protective coating for indoor and exterior applications.

Colours: Clear, White, Yellow, Black, Red and a range other colours volume dependant

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.
 - As an abrasion resistant topcoat to Optima Coatings seamless polyurethane waterproof coating systems for various waterproofing applications including above tiles, below tile, below screed, bathroom wet areas
 - Also used as a UV reflective highly abrasion resistant topcoat to cover PU spray foam.
 - Aircraft hangers and aprons
 - 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.

ADVANTAGES

- Easy to apply direct from can.
 - Attractive anti-slip finish
 - Tough and flexible.
 - Durable polyurethane and rubber compound.
 - Prevents rust and corrosion.
 - Excellent UV and weather resistance.
 - Impact and abrasion resistant.
 - 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).
- Available in a range of colours.

COVERAGE

- 4-6m² per litre per coat. Applied in a 2 coat application. Two coat system @ 2-3m² per litre
- Coverage will vary depending on the porosity and profile of the surface.
- Three coats are recommended for high wear areas.

SURFACE PREPARATION

- Substrates differ significantly, and so all new applications should be tested first.
- Ensure all substrates are thoroughly clean, sound, dry and free from any contaminants such as dirt, rust, salt, algae and grease.
- Alkyd, epoxy and polyurethane primers can be used with Protectakote UVR.
- Steel and Aluminium: Remove surface rust with a light sandpaper or wire brush. Clean thoroughly with xylene and allow to dry thoroughly. Perform an adhesion test, as mild steel may not require an etch primer; all other metals require a suitable metal primer.
- Motor Vehicles and Painted metal: Remove heavy dirt and rust. All surfaces must be cleaned using xylene, acetone or an alkaline domestic detergent. All previously painted surfaces need to be lightly abraded using a scouring pad or medium grit sandpaper leaving no glossy area. Clean away sanding dust using xylene. Allow the surface to dry thoroughly. Borders and areas not to be coated must be masked off. Remove masking tape immediately after applying the second or final coat. If the tape sticks, cut with a knife.
- Galvanized steel: Clean metal with a suitable galvanized cleaner. Allow to dry thoroughly. Prime with a suitable etch or galvanized primer.
- Concrete: Allow new concrete at least 28 days to cure. Remove any sealers or release agents. Clean away any oil and grease with a suitable degreaser. Glossy or floated surfaces need to be etched with a suitable acid wash or shotblasted to remove surface contaminants and open pores in the concrete. Clean surface with water and allow to dry thoroughly. Prime concrete surfaces with an epoxy primer in order to consolidate the concrete and create a dry surface for the application of Protectakote UVR and ensure good adhesion. In the absence of such a primer ensure that the concrete is dry, and ensure penetration of the first coat of Protectakote UVR by thinning with 10% xylene if necessary.
- Wood: Abrade, clean and dry the surface before applying Protectakote UVR directly - dilute the first coat with 10% xylene to aid penetration.
- Fibreglass: Abrade well, solvent wipe and apply Protectakote UVR directly onto the surface.
- PVC: Abrade and clean well using xylene. Allow to dry. Apply Protectakote UVR directly. An adhesion test is recommended prior to use.
- Rubber (nitrile or chloroprene): Abrade and clean well using xylene. Allow to dry. Apply Protectakote UVR directly. An adhesion test is recommended prior to use.
- Gloss Paints and Varnish: Abrade to remove all gloss, wipe with a solvent, allow to dry and apply Protectakote UVR directly.
- Glazed tiles: Glazed tiles must be cleaned and treated with a suitable primer (an organosilane) for adhesion of Protectakote UVR.

APPLICATION

- Ensure substrates have been prepared; tests for adhesion completed and areas not to be coated have been masked off.
 - Take care when opening pails as contents may be under pressure.
 - Stir well before use. Stir for at least 3 minutes prior to application and occasionally during application.
 - Spray: Dilute Protectakote UVR with 10% xylene. Use 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, allowing time for all solvent to evaporate between coats. Intercoat time approximately 60 – 90 minutes (when touch dry) depending on ambient conditions.
 - Brush/Roller: 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 0,28mm to 0,35mm. Second or subsequent coats should be applied at right angles to the previous coat.
 - Roller: If applied with a stipple roller, application is quicker and the final texture rougher with greater non-slip characteristics. Not recommended for smooth version.
 - Curing time: Protectakote UVR cures with atmospheric moisture. Without an accelerator the coating will be touch dry in about 60 – 90 minutes, allowing light traffic after 6 hours. Protectakote UVR achieves full strength and chemical resistance in 4 to 7 days, but normally coating can be put to use after 24 hours.
 - Accelerated cure: In areas of low atmospheric moisture or when shorter curing times are required, an accelerator can be added prior to use.
 - Overcoating time: 60 – 90 minutes at 25°C at 50% relative humidity. If Protectakote UVR is left for more than 24 hrs after coating, it should be abraded before recoating to aid intercoat adhesion.
- Touch-up 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, damaged surfaces must be cut out to provide an area without loose edges.

CLEANING

- Hands and equipment can easily be cleaned with xylene after the drying time but before final cure.
- Acetone can also be used for cleaning but not for dilution.
Use hot soapy water to clean the coating.

IMPORTANT

- Do not clean surfaces with lacquer thinners or other alcohol-containing solvents.
- Do not thin with any solvent containing water or alcohols. Xylene is recommended as an appropriate thinning agent.
- Do not apply to bare metal without an appropriate primer.
Protect Protectakote UVR from moisture and do not expose unopened cans to temperatures above 50°C.

SAFETY PRECAUTIONS

- Protectakote UVR Special is highly flammable in its wet state due to its solvent content. Use extinguishing powder, CO2 or halogens to extinguish in case of emergency.
- Remove any overspray immediately; Protectakote UVR is very difficult to remove once cured.
- Once opened use Protectakote UVR within 2 hours; or 1 hour if accelerator is used.
- Ensure good ventilation to prevent buildup of flammable solvents.
- Wear goggles and rubber gloves. Protectakote UVR bonds to the skin and can only be removed with a pumice stone.
- Skin contact: Wash 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.

STANDARDS

TECHNICAL DATA

Pack size	1 litre, 5 and 20 litre		
Finish:	Gloss		
Colour:	Range of 30 standard colours		
Tinting:	Not recommended		
Volume solids:	Textured: 65.4%±2%; smooth:67%±2% (may vary by colour)		
Weight solids:	Textured: 70%±2%; smooth: 74%±2% (may vary by colour)		
VOC (EPA method #24):	Textured: <310g/l; smooth: <278g/l		
Shelf life	18 months unopened. Store indoors at 5 to 35°C.		
Thinning/clean up	Optima Xylene		
Flash point	27°C		
Storage	Cool, dry area below 25°C		
Tensile strength at break	28 MPa (ASTM D638)		
Elongation at break	150% (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)		
Minimum heat softening temperature	130 Degrees Celsius		
Exterior durability	~10 years depending on conditions		
Recommended spreading rate per coat:			
Wet film thickness for smooth:	Minimum:250 and Maximum 425 microns		
Dry film thickness for smooth:	Minimum:168 and Maximum 285 microns		
Drying schedule @ 425 microns wet	@ 10°C	@ 20°C	@ 30°C
Tack free time	4 hours	2 hours	1 hours 30 min

Light traffic	12 hours	6 hours	4 hours 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 hours 30 min
Maximum before re-preparation of the surface becomes necessary:	24 hours		

Note: 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.

DISTRIBUTED BY: OPTIMA COATINGS (PTY) LTD

Updated: June 2016 (this supercedes all previous publications)