

TECHNICAL DATA SHEET

500T TETRATHANE®

UV Resistant and Protectant Urethane



Description

Tetrathane® is a proprietary, single-pack, solvent-based, aliphatic, moisture cure polyurethane with an extreme level of resistance to yellowing and the direct effects of UV exposure. The product is both UV stable & UV protectant when used as a top coat to All Purpose Coatings systems. Tetrathane® cures by reaction with moisture in the surrounding environment to create an extremely tough and durable finish. The product can be used as a standalone topical coating over prepared concrete giving a high-end, long-lasting, and gloss finish. Alternatively, use as a top coat on most of the APC systems, Tetrathane® allows the system to be successfully installed inside and outside in partial and direct sunlight.

Recommended Uses

- Top coat over most EPO100® Epoxy Systems
- Priming and base coats
- Outdoor areas
- Domestic, commercial and industrial floors
- Restaurant floors
- Cold storage area floors
- Garage floors

Features and Benefits

- UV resistant and protectant
- Extra low viscosity
- Good abrasion resistance
- High gloss level
- High tensile strength
- Fast cure
- In service temperature range: -15°C to 90°C
- Extended pot life
- Australian Made
- Able to be tinted

Product Information

Coverage

3 - 8m²/L depending on the system, application, and porosity of the surface.

Dry Film Thickness

75 - 175 µm depending on the system, and application.

Shelf Life

12 months in the original sealed container. 3 months once opened. Store in a cool, dry area and out of direct sunlight

Clean Up

Clean tools with APC Thinners while still wet and discard rollers and brushes.

Cure Times

Pot life: 45 minutes
Work time: 30 minutes
Thin tack free: 4 hours
Thin shore hardness: 72 hours
Max recoat time: 72 hours without sanding

Return to Service

Light foot traffic: 24 hours
Vehicle Traffic: 72 hours
Full chemical cure: 5-7 days

Testing Information

Cure times completed at 25°C in a 100g container or at 200µm.

Maintenance

Refer to APC Clean and Care guide.

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Environmental Conditions

Temperature and the surrounding atmospheric conditions will play a part in the curing process. Attention needs to be paid to the substrate temperature which should be above 10°C and at least 5°C above the dew point. The ideal humidity is less than 60%. Do not apply if the substrate is subject to rain or moisture within 12 hours during the curing time and do not use where rising damp is an issue.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates, and environmental conditions including the substrate and air temperatures, humidity levels, and dew point readings during both the application and curing process. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

Surface Preparation

- Ensure the concrete is sufficiently cured to the recommended minimum of 28 days from completion.
- Diamond grind the substrate. The surfaces must be clean, dry, and free from all traces of loose material, old coatings, curing compounds, release agents, laitance, oil, and grease, etc. This must be completed by diamond grinding or a suitable cleaning method.
- To check that all traces of oil and other contaminants have been completely removed, sprinkle a few drops of water over the surface. If all water is quickly absorbed, the surface is sufficiently oil and grease-free.
- If water forms into globules that remain on the surface, further thorough treatment of the substrate is necessary.
- Substrate compression strength should be at least 25MPa, cohesive bond strength at least 1.5MPa, and moisture content below 4%.
- Repair and fill cracks with EPO100EP Epoxy Putty or APC Concrete Repair Kit.

Product Application

- To ensure a successful application of Tetrathane®, it is crucial to follow these steps carefully. Begin by pouring the required amount of Tetrathane® from the tin into a bucket or container, taking into consideration the quantity that can be effectively applied within a 30min timeframe, weather depending.
- Once the desired amount has been poured, promptly seal the product tin to prevent any exposure or contamination. Remember, it is important not to pour any excess product back into the original tin, as this may cure and compromise the quality of the product in the tin.
- To apply Tetrathane®, use a roller and brush to spread ribbons/lines of product. While Tetrathane® is known for its self-levelling properties, it's essential to work efficiently due to its increased drying nature. Applying the product too slowly may result in visible roller marks, puddles or "spider webbing".
- Throughout the application, it is crucial to maintain a wet edge by slightly overlapping each stroke with the previous one. This technique ensures a seamless finish. However, be cautious not to over-roll, as excessive rolling can have a negative impact on the outcome.
- By adhering to these guidelines, you can achieve optimal results when applying Tetrathane®.

Optional Slip Resistance

Dimple: Mix at 250g per 20L of Tetrathane® achieving a moppable slip resistance

Glass: Broadcast 1 kg per 20m² between Tetrathane® top coats. Suited for wet or external areas, not suited for internal garages; cannot be mopped.

See individual Installation Instructions for specific instructions over APC systems.



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Physical Properties

Solids Content	48%
Impact Resistance	AS 1580.406.1: high
Bond Strength to Concrete	100% concrete failure
Volatile Organic Compounds	AP-T002: very high
Resistance to Chemical Spills (7 days at 25°C)	
Excellent Resistance	Aliphatic solvent
Good Resistance	Alkali, aromatic solvent, mineral acid, water
Fair Resistance	Alcohol, organic acid, oxidising acid



CAUTION

- Tetrathane® cures by reaction with moisture in the surrounding environment. In general, the higher the temperature and humidity the faster the product will cure.
- Check that Tetrathane® has sufficiently cured before recoating, otherwise, adverse reactions and delamination may occur.
- When temperature and humidity is high, 10% APC Thinners may be added to Tetrathane® to slow the curing process slightly.
- Clean material from spout and container thread before re-sealing.
- Avoid prolonged storage of part-filled and previously opened product.
- Tetrathane® is not designed as an external coating for timber floors & walls or external cladding.
- **If coating with Tetrathane® over epoxy, ensure the epoxy has fully cured prior to application.**
- Some vehicle tyres may contain a protective product that reacts with some topcoats, in this case, it is recommended that a form of matting under the tyres be used to protect the finished floor until leaching from the tyres has stopped approximately 6 months or 10,000km.
- If recoating after 72 hours since the last coat, a mechanical bond will need to be made by sanding the previous coat.
- All solvents, corrosives and spills should be cleaned up as soon as possible.
- **DO NOT RETURN UNUSED PRODUCT TO THE CONTAINER. RESEAL THE CONTAINER IMMEDIATELY AFTER OPENING.**

In an emergency, contact the Poisons Information Centre on 13 11 26 or a doctor for advice. IF THE SITUATION IS LIFE THREATENING, DIAL 000 IMMEDIATELY.

DISCLAIMER: Please ensure you read the SDS & TDS thoroughly & carefully before the use or application of any All Purpose Coatings product. These documents contain information in context to how you will apply the product, including if it is being used in conjunction with any other products or systems, and to what surface the product will be applied. All-Purpose Coatings Pty Ltd does not accept any liability either directly or indirectly for any losses that arise from the use or application of the product in accordance with any advice, specification & recommendation given by the companies' documentation or representatives at any point in time. Application, performance & safety data may change from time to time. It is the user and/or applicators' responsibility to ensure they have the latest copy of any documentation pertaining to their project. Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

