# DURATHANE SP100™

Date of Issue – October 2020 V1.2
This TDS replaces all previous versions.

TECHNICAL DATA SHEET

## DESCRIPTION

**Durathane SP100™** is the latest generation of ultra-high solids, non-flammable, aliphatic and moisture cured single component polyurethanes. We have designed it to be non- yellowing and UV stable. Durathane SP100™ coating provides an extremely tough but flexible, hard wearing film and is used as a durable protective coating system for high traffic areas, with a gloss finish. This product is Ideal for seamless top coating on interior and exterior surfaces, epoxy flake flooring, polished concrete and epoxy coating systems. Durathane SP100™ is easy to clean, maintain and is designed for use in a wide range of environments where a lasting solution to floor maintenance problems is required. The exceptional resistance to a wide variety of chemical spillage makes this product ideal for use in residential, commercial and industrial environments.

## FEATURES & ADVANTAGES

- Non-flammable
- UV stable and Non-yellowing
- Excellent adhesion/inter-coat adhesion
- Exceptional abrasion resistance
- Superb water & chemical resistance
- High durability
- Perfect for heavy-duty environments
- Retards growth of mould, fungus, mildew and bacteria
- Glass-like finish gloss
- Interior & exterior use

## RECOMMENDED USE

- Decorative finishes
- High traffic areas
- Hallways, Corridors & Hospitals
- Polished or hooned concrete
- Garages and workshops
- Clear coat for metallic epoxy flooring
- Factories, shops and aircraft hangars
- Industrial, domestic and retail flooring
- Top Coat for epoxies and flake flooring
- Restaurants & Public Municipalities
- Schools, Showrooms & much more…

## TECHINCAL DATA & CHARACTERISTICS

| | |
|---|---|
| APPEARANCE | Liquid |
| COLOUR | Clear |
| VOLUME SOLIDS | 100 % |
| FINISH | Gloss |
| COVERAGE | 6 – 12m² |
| MIX RATIO | Single pack moisture cure |
| PACK SIZES | 4L |
| SPECIFIC GRAVITY | 1.12 kg/L |
| POT LIFE | Cures in contact with air |
| DRYING TIME | 2 – 4 hours @ 25°C |
| RECOAT TIME | 4 – 16 hours @ 25°C |
| FULL CURE | 2 days @ 25°C |
| SHELF LIFE | 12 months, if properly stored in original unopened containers at temperatures between 10° C and 30°C, away from sunlight. |

* The pot life time depends on climatic conditions and temperatures.

** Drying times generally depend on air circulation, temperature, film thickness, and application methods. The figures given above are typical with good ventilation, typical film thickness and single coat application.

TECHNICAL DATA SHEET

## SURFACE PREPERATION

All surface preparations have to be carried out to Australian Standard or International Standard. New concrete must be cured for a minimum of 28 days before a coating.
Concrete moisture test should be carried out prior to coating application as per Standard ASTM4263 and/ or International Standard. The moisture content should be less than 4%.
Surface to be treated must be structurally sound and the substrate compressive strength should be at least 25MPa. The substrate tensile strength should be at least 1.5N/mm$^2$. All non-structural cracks, holes and surface deformities should be repaired.
In general, the surface to be treated MUST be clean and free of all traces of loose material, dirt, debris, mildew, oil, grease, old coatings, curing compounds, release agents, laitance, dust and other contaminants.
All new or old concrete surfaces should be prepared by mechanical grinding, abrasive blasting, blast-tracking, or any other suitable preparation/cleaning methods. Surface profile should exceed CSP 3 after preparation. Check if all traces of oil and other contaminations has been completely removed prior coating application.

For more detailed information, see following standard codes of practice, guides and techniques:
ASTM D4258 Standard practice for surface cleaning concrete for coating
ASTM D4259 Practice for abrading concrete
ASTM D4260 Practice for liquid and gelled acid etching of concrete
ASTM D4262 Test method for pH of chemically cleaned or etched concrete surfaces
ASTM D4263 Test method indicating moisture in concrete by the plastic sheet method
ASTM D4285 Test method for indicating oil or water compresses air

TECHNICAL DATA SHEET

## APPLICATION & GUIDELINES

**Mixing**
No mixing required if you use a clear gloss version.

**UV Absorber Packs**
Shake UV absorber pack well before use. Pour only as much Durathane SP100™ as needed in a separate bucket. Measure correct UV absorber pack ratio appropriate to your amount of Durathane SP100™ to be used. Add 2% of DCC UV Absorbers by volume (20ml per 1L) to Durathane SP100™. Use a mechanical mixer to distribute the absorbers properly and ensure thorough mixing. Mix at least for 1 - 2 minutes on low speed and avoid aeration when mixing the product.

**Tint Packs**
Shake or stir tint pack well before use. Check colour prior to mixing with Durathane SP100™. Pour only as much Durathane SP100™ as needed in a separate bucket. Measure correct tint pack ratio appropriate to your amount of Durathane SP100™ to be used. Add 5 – 10% DCC tint by volume to Durathane SP100™. Add tint into the urethane. Use a mechanical mixer to distribute the pigments properly and ensure thorough mixing. Mix at least for 2 - 3 minutes on low speed and avoid aeration when mixing the product.

**Application**
Priming is recommended before the first coat to prevent pin holing or bubbles when applying directly on porous substrates and to minimise sink-back of material. Check colour prior to application if you have tinted your batch. Prime coat with approximately 8-12m²/L, check for pinholes and do a 2nd prime coat if necessary. If thinning is required, you can add 20% of Solvent SLP100™. For priming you can add up to 100% of Solvent SLP100™.
Do NOT pour unused Durathane SP100™ from the roller tray back into the original container as this will start the whole material to react and gelling/cure within the drum.
One coat is sufficient, unless substrate is extremely porous or solvent is used for dilution. If product has been diluted, then two coats as minimum recommended, depending on the desired finish. Use a lint free epoxy roller to apply the product. The second coat must be applied within 16 hours of the application of the first coat to ensure the second coat will bite into the first coat. After 16 hours the first coat must be sanded prior application of the second coat to assure a sound adhesion between coats.

**Curing Times**
Dry Times: 2-4 hours, Re-coat window: 4-16 hours, Full cure: 2 days. Allow coating to cure for at least 24 hours before subjecting to light pedestrian traffic and at least 2 days for full cure and vehicular traffic. All drying times depend on climatic conditions, temperatures, film thickness, ventilation, humidity and application methods.

**Cleaning**
Clean all equipment immediately after use with Solvent SLP100™ or thinners.

**Coating Maintenance**
In general dirt, dust, contaminants, and excessive wear and tear will shorten the life of coating. Keep these areas clean and free from such pollutants and avoid excessive wear and tear. Clean coating regular with warm mild detergent water up to 60°C and rinse with clean water. Do not use abrasive brushes, scouring pads or solvent to clean the coated surface. It is advisable if abnormal wear and tear will occur through moving furniture such as office chairs, keep these areas protected with a protective mat. For detailed information please refer to DCC Maintenance & Cleaning guide.

**Compatibility & Suitability**
Do NOT mix this product or use this product in combination with any other products or brands. Due to the differences in substrates, material and site conditions, and environmental surrounds, the applicator holds whole responsibility for checking the products suitability for its intended purpose prior application. Only products of the same brand/system should be used in combination as a system.

TECHNICAL DATA SHEET

## PRECAUTIONS

For professional use only. Safety Data Sheets and Technical Data Sheets must be read before using and opening this product. Keep out of reach of children. Always wear personal protective equipment (PPE) when handling this product. Keep away from heat and flame. No smoking. Provide adequate ventilation. For more details refer to safety data sheet (SDS).

Do not apply if the air or surface temperature is below 10°C, or if the temperatures are subject to drop below 10°C during applying, or after application within the curing time.

Do not apply if substrate is subject to hydrostatic pressure or rising dampness.

Do not apply if surface is subjected to unusual high temperatures above ambient temperature.

Do not apply if the surface temperature is over 30°C, or if the surface temperature is subject to raise above 30°C during applying, or after application within the curing time, or if relative humidity is suspected to become above 85%.

Do not apply if substrate is subject to rain or moisture, and protect surface at least 24 hours against any water impact, or moisture after application within the curing time. Do not use any product past its pot life. Store locked up, in a cool, dry, well ventilated place, away from sunlight, between 10°C and 30°C. Keep container tightly closed.

## DISCLAIMER

Do not apply this product if there is uncertainty about application or surface preparation. This Technical Data Sheet is to be used as a guide only; it is NOT a specification. Durable Concrete Coatings Pty Ltd has no control over the use or storage of this product and therefore does not accept liability in this regard. Any verbal advice given should not be regarded as authoritative information. This information is subject to change without notice, therefore all applicators should ensure they have current information. This product is intended for the use only of skilled tradesman and where applicable, statutory licensed tradesmen experienced and trained in the use of this product. Due to differences in substrates, application methods and local conditions purchasers of these products must ensure that it is suitable for their specific application before using these products. While the information contained in the TDS and SDS is accurate to the best of our knowledge, Durable Concrete Coatings Pty Ltd cannot guarantee that the information contained is wholly comprehensive. Subject to the provisions of the Trade Practices Act, the Company's liability in relation to defective product shall be limited to replacement of the product, proving the product to be defective. Durable Concrete Coatings Pty Ltd all terms and conditions apply.

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