Office: 08 8121 7867
enquire@ecoshield.com.au
www.ecoshield.com.au

# Eco Sparta Shield

**100% Polyaspartic 2-Pac Fast-Cure Chemical & Abrasion Resistant Floor Coating for Interior/Exterior**

## Physical Properties

*Volumetric Ratio..... 1 to 2*
*Coverage ..... 0.125 litres / m²*
*Application Temperature... 2 °C to 40 °C*
*Pot Life ..... 15 minutes @ 25°C*
*Working Time on Floor ..... 15 minutes*
*Dry to Touch ..... 1 hour @ 25 °C*
*Recoat ..... 2 hours @ 25°C*
*Light Traffic ..... 4 hours @ 25°C*
*Heavy Traffic ..... 24 hours @ 25°C*
*In-service Temperature Range*
*..... -15°C to + 90 °C*

## Colourants

*Supplied as a clear base.*
*Pigment packs for standard colours available. Custom colours on request.*

## Packaging

*6 litre kit:*

- *Part A - 4L Container*
- *Part B - 2L Container*

## Product Description

*EcoShield Polyaspartics are the next generation in 2 component, fast drying, Aliphatic Polyurea. The properties of fast cure, high gloss, UV yellowing resistance, chemical resistance and practically no odour enable wide usage in many applications*

## Applications

- *Pharmaceutical*
- *Health care facilities*
- *Schools*
- *Food prep / kitchens*
- *Garage floors*
- *Malls*
- *Manufacturing plants*
- *Restrooms*
- *Aisle ways*
- *Laboratories*
- *Kennels*
- *Retail stores*
- *Chemical plants*
- *Commercial areas*
- *Driveways*
- *UV and wear resistant top-coat for Polyurethanes and Epoxy coatings*
- *Decorative flake flooring*

## Benefits

- *Fast cure enables early 24 hour use of premises*
- *Superior impact and wear resistance*
- *Excellent chemical and stain resistance*
- *Excellent wetting & penetration to achieve mechanical adhesion*
- *Suitable for interior and exterior application*
- *Excellent salt spray and humidity resistance*
- *UV resistance against yellowing*
- *Low temperature cure*
- *Reduces floor care and maintenance costs*
- *Flexible*
- *VOC compliant*

## Typical Properties of Combined Part A and Part B

| | |
|---|---|
| *Appearance* | *Clear liquid* |
| *Total solids by weight* | *100%* |
| *Viscosity at 25°C* | *400 cps* |
| *Mixing ratio* | *2 parts A to 1 part B* |
| *VOC – ASTM D2369-81* | *Compliant* |
| *Tensile strength ASTM D412* | *42 mPa (6,000 psi)* |
| *Ultimate elongation ASTM D412* | *8%* |
| *Hardness shored 24 hr* | *65* |
| *Abrasion resistance, CS 17 1000 cycles, 1 kg load* | *55 mg loss* |
| *Gloss @ 60° angle ASTM D523* | *85 minimum* |
| *Mandrel bend* | *No cracks @ 180°* |

## Chemical Resistance

| Reagent | Rating | Reagent | Rating |
|---|---|---|---|
| *Brake fluid* | *Recommended* | *Brake fluid* | *Recommended* |
| *Coolant* | *Recommended* | *Coolant* | *Recommended* |
| *Beer* | *Recommended* | *Beer* | *Recommended* |
| *Citric acid – 30%* | *Recommended* | *Citric acid – 30%* | *Recommended* |
| *Diesel fuel* | *Recommended* | *Hydrochloric acid – 15%* | *Recommended* |
| *Petrol* | *Recommended* | *Orange juice* | *Recommended* |
| *Transmission fluid* | *Slight discolouration* | *Sodium Hydroxide – 50%* | *Recommended* |
| *Battery acid* | *Damaged* | *Sulphuric acid – 20%* | *Recommended* |

## *Surface Preparation*

*All surfaces to be coated must be clean, dry and free from contaminants such as dust, laitance, grease, oil, waxes and curing compounds.*
*Concrete should be dry to ASTM F2170 Calcium Chloride test maximum relative humidity of 75% or 5.5% as determined by an impedance moisture meter such as Tramex Concrete Encounter. Note moisture testing does not guarantee against later moisture issues such as osmotic blistering resulting from deep down moisture within the slab diffusing to the surface.*
*Concrete should be prepared to an open textured surface by means of shot blasting or diamond grinding.*
*Surface defects should be ground out, filled per EcoShield advice then ground flat.*

## *Temperature and Humidity*

*During the application and cure of the coating, the substrate, material and room conditions should be maintained between $8^0$C and $32^0$C. Relative humidity is best between 25% to 70%.*
*Note that as the relative humidity and temperature rise, pot life and working time on the floor decrease. For every $10^0$C rise in temperature the pot life and working time will be about half of that at 25 $^0$C. Do not apply coatings unless at least $5^0$C above Dew Point as haziness and loss of gloss can occur.*

## *Component Mixing*

*Do not store component parts in a warm environment as the warmer the materials start point the shorter the pot life and working time.*
*Add 2 parts by volume of part A to a clean mixing bucket. Stir in recommended colourant if being used using a slow speed power agitator mixer (paint stick mixing is not adequate). Add 1 part by volume of part B and slow speed mix for 15 seconds. Scrape sides and base with flat bottom and edge scraper. Mix for a further 30 seconds.*
*Immediately pour onto floor surface so as to maximise on-floor-working-time. Approximate working time is 15 minutes.*

## *Recommended Application Rate*

*Apply by brush, roller, rake or squeegee. Mix, spread and level the material as quickly as possible. Immediately mix and pour onto the floor the next adjacent mix and repeat as close as possible. Delaying the adjacent area application can lead to witness marks or patchy application. Minimise rolling into previous section as this can cause undesirable stipple or poor levelling.*

*Coverage should be approximately 8 sq.m. per litre for a film build of 125 microns per coat.*

## *Priming*

*Eco Sparta Shield Polyaspartic is self priming. However, a fast dry, reduced cost, lower build, penetrating concrete seal can be achieved with use of EcoShield Eco Bond prior to application of the Polyaspartic.*

## *Construction and Control Joints*

*Coating systems are susceptible to cracking if the concrete moves or separates below the surface. Joint and crack treatment should be reviewed prior to coating application. Refer to EcoShield Technical Bulletin. Construction joints where slabs meet and can move, should be coated and then sawn through and an elastomeric caulking compound applied.*

## *Important note*

*The information contained in this Data Sheet is believed to be correct and is intended as a guide only for product use. It is important that product users satisfy themselves as to the suitability of the product for the intended purpose. EcoShield accepts no responsibility for consequential loss. Liability is only to replace materials if found to be of defective manufacture. Always consult the MSDS prior to product use.*

*If in need of product advice or further information contact EcoShield on 08 8121 7867*
*For 24/7 MSDS or safety advice contact tamsaconsult@optusnet.com.au or phone or text to 0414 793 237.*

*Prepared by TAMSA International Consulting September 2014*