Redefining the coatings industry

TECHNICAL DATA SHEET

SPARTA SHIELD® Polyaspartic

UV Resistant and Protectant

Description

Designed, formulated and manufactured by All Purpose Coatings, Sparta Shield® is a next-generation two part polyaspartic coating engineered for faster curing and quicker return to service. With exceptional UV stability and protection, chemical resistance and long-term durability, Sparta Shield® is specifically designed for exterior applications and built to perform in commercial, industrial and residential environments.

Sparta Shield® delivers an industrial grade solution where time-sensitive application, lasting protection and superior finish are essential.

Recommended Uses

- Commercial, industrial and domestic floors
- Exterior applications
- Pool surrounds
- Driveways
- Pathways, walkways and entryways
- Service stations
- Car parks
- Courtyards
- Outdoor common areas

Features and Benefits

- Australian made
- UV resistant and protectant
- Easy mix ratio of 1:1 by volume
- Low viscosity
- Good abrasion resistance
- High gloss level
- High tensile strength
- Fast cure
- Wide application temperature range
- In service temperature range: -15°C to 90°C
- Designed for exterior applications

Product Information

Mixing Ratio	(1:1) 1 part SPASHIELD Part A : 1 Part SPASHIELD Part B by volume.
Coverage	3-8m2/L depending on the system, application, and porosity of the surface.
Dry Film Thickness	100 - 250 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 and moisture.
Clean Up	Clean tools with APC Thinners while still wet and discard rollers and brushes.
Cure Times	**Pot life:** 25-30 minutes **Work time:** 15-20 minutes **Tack free:** 1 hour **Max recoat time:** 24 hours without sanding **See Cautions**
Return to Service	**Light foot traffic:** 5 hours **Vehicle traffic:** 24 hours **Full chemical cure:** 3 days
Testing Information	Cure times completed at 25°C in a 100g container or at 200µm.
Maintenance	Refer to APC Clean and Care guide.

NOTE: Refer to individual Installation Instructions & SDS for mixing instructions, recommended PPE during preparation & application of products.

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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 must be above 10°C. The ideal humidity is less than 80%. 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

- Surfaces must be dry, clean, and free of foreign matter. Sparta Shield® can be applied with a roller, or brush.
- Part A and B should be gently shaken or stirred individually before combining. It is recommended that the temperature of each component is between 15-25°C for optimal pot and working time. Do not mix more product than can be applied in 20 minutes.
- Add equal parts by volume (1:1) to a clean dry bucket. Mix slowly with a paddle type powered mixer until a homogenous mixture is obtained. This should take approximately 2 minutes. Use care to ensure all product on the sides and bottom of the mixing container are combined thoroughly. For system-specific instructions, consult the All Purpose Coatings Installation Instructions documentation, located on the website.

  It is recommended to read the Installation Instructions on APC Systems prior to the application.

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Physical Properties

Solids Content	>70%
Hardness	Pencil-2H Pendulum-160
Tensile Strength (psi)	ASTM D412: 6,500
Tear Resistance	ASTM D624:400 ± 50 pli
Tensile Strength	ASTM D412:3000 ± 200 psi
Ultimate Elongation	ASTM D142:100 ± 20%
Elongation	ASTM D412:100 ± 20%
Taber Abrasion Resistance	AS/NZS 1580.403.2-2006: ~150mg loss (mg of loss/1000 cycles) H022 wheel; 1000 grams weight
Shore Hardness	ASTM D2240:65 ±2 Shore D
Volatile Organic Compounds	AP-T002: very high
Water Absorption (%)	ASTM D570: 0.5
Impact Resistance	AS 1580.406.1: high
QUV Weather Meter **4,000 hours**	Oxidation: no effect Loss of gloss: no effect Blistering: no effect Yellowing: no effect

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CAUTION

- Caution should be taken in relation to the quantity of each batch mix size, application time and thickness of application. Larger mixes can cure substantially faster.
- Equipment should be cleaned immediately after use with APC Thinners.
- The clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications.
- Containers that have been opened must be used as soon as possible.
- Do not use where rising damp is an issue. Rising damp may hinder Sparta Shield®'s adhesion.
- **Maximum recoat time is 24 hours. If 24 hours is exceeded sand the existing coat prior to recoating.**
- If coating over plain epoxy, sanding is required prior to application.
- Avoid moisture exposure for the first 12 hours after application. Failure to follow this guideline may result in discolouration or delamination.
- All solvents, corrosives and spills on the finished flooring system should be cleaned up as soon as possible.
- An insufficient spread rate can result in separation.
- **Sparta Shield is not suitable for wet on wet applications due to the rapid curing formulation.**

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.