

TECHNICAL DATA SHEET

SPARTA GUARD® Polyaspartic

UV Resistant & Protectant, APAS Polyaspartic



Description

Designed, formulated, and manufactured by All Purpose Coatings, Sparta Guard is an advanced two-component coating system, offering rapid cure and fast return-to-service capabilities. Engineered with UV resistant and UV protective properties, this advanced coating is specifically tailored for use in diverse commercial, industrial and residential environments. Sparta Guard provides a long-term flooring solution, meeting and exceeding the stringent requirements of Australian building standards. Sparta Guard is APAS (Australian Paint Approval Scheme) approved, ensuring that National Standards for schools, education facilities, and other government projects are met. This certification attests to its adherence to rigorous quality and safety standards, making it a trusted choice for projects that demand the highest standards of performance and regulatory compliance.

Recommended Uses

- Schools and educational facilities
- Government projects
- Warehouses and factories
- Commercial and industrial floors
- Interior & exterior residential
- Garage floors

Features and Benefits

- Australian made
- APAS approved (Australian Paint Approval Scheme)
- Green Building Council standards
- UV resistant and protectant
- Easy mix ratio of 1:1 by volume
- Low viscosity
- Low VOCs (Volatile Organic Compounds)
- Good abrasion resistance and high tensile strength
- High gloss level
- Fast cure with extended pot life
- Wide application temperature range with in service temperature range: 10°C to 60°C

Product Information

Mixing Ratio

(1:1) 1 part Sparta Guard Part A : 1 part Sparta Guard Part B by volume

Dry Film Thickness

150 - 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.

Clean Up

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

Coverage

3-4m²/L over Ultra/Hyper Flake for a Grip Finish.
3-4m²/L over Ultra/Hyper Flake for a Crystal Finish.
4-5m²/L over Ultra/Hyper Flake for an Essential Finish.
6-8m²/L over a Plain Coat System.

Cure Times

Pot life: 40 minutes
Work time: 30 minutes
Tack free: 12 hours
Max recoat time: 36 hours without sanding

Return to Service

Light foot traffic: 36 hours
Light vehicle traffic: 48 hours
Heavy vehicle traffic: 72 hours
Full chemical cure: 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 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.

**The surface must be dry before the application of the product.
Acid or wet etching is not recommended**

Product Application

- All Purpose Coatings Sparta Guard 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 30 minutes.
- Add equal parts by volume (1:1) to a clean dry bucket. Mix slowly with a paddle type powered mixer until a homogeneous 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.

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

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Physical Properties

Solids Content	90%
Hardness	Pencil-2H Pendulum-160
Tensile Strength (psi)	ASTM D412: 6,500 PSI
Tear Resistance	ASTM D624: 400 ± 50 psi
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: 210mg loss (mg of loss/1000 cycles) H022 wheel; 1000 grams weight
Shore Hardness	ASTM D2240: 60 ± 2 Shore D
Volatile Organic Compounds	AP-T002: very low
Water Absorption	ASTM D570: 0.5%
Water Vapour Transmission	ASTM E-96
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

Properties were checked on dry films at 0.127-0.152mm thick, air dried for 7 days.

Critical Radiant Flux (CRF in kW/m ² of Floor Materials and Floor Coverings)			
BCA Building Class	General		Fire-Isolated Exits
	Building not fitted with a sprinkler system complying with Specification E1.5	Building fitted with a sprinkler system complying with Specification E1.5	
E1.5 Class 2,3,5,6,7,8 or 9b Excluding accommodation for the aged	2.2	1.2	2.2
Class 3 Accommodation for the aged	4.5	2.2	4.5
Class 9a - Patient care areas Areas other than patient care areas	4.5 2.2	2.2 1.2	4.5
Class 9c - Residential Use Areas other than residential use areas	- -	2.2 1.2	4.5 4.5

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CAUTION

- This product should only be applied by an experienced applicator.
- 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.
- Containers that have been opened must be used as soon as possible.
- Do not use where rising damp is an issue.
- **The maximum recoat time is 36 hours. Sand the existing coat with 120 grit prior to application.**
- **If coating over plain epoxy, sanding is required to achieve a mechanical bond**
- Avoid moisture exposure for the first 12 hours after application.
- Sparta Guard curing times will increase the thicker the product is applied.
- When applying Sparta Guard as a stand-alone coating, two coats are required at 6-8m²/L per coat.
- **Insufficient film thickness may reduce the effective UV resistance.**
- All solvents, corrosives and spills should be cleaned up as soon as possible off the finished floor.

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.

