

TECHNICAL DATA SHEET

SHIMISPART™ RAPID PROTECTIVE COATING¹

Rapid-Cure Structural Polyaspartic Coating

High-strength, rapid-curing 100 % solids polyaspartic protective coating Product code SP02

1. PRODUCT DESCRIPTION

SHIMISPART™ RAPID PROTECTIVE COATING is a high-performance, moisture-tolerant, structural polyaspartic coating for fast, reliable surface protection. It is a two-component, 100 % solids clear resin that hardens within approximately half an hour at 25 °C, giving a smooth, seamless, hard-wearing finish that can be returned to service the same day.

The same resin forms the basis of SHIMISPART™ RAPID REPAIR. Where a trowellable mortar is required rather than a coating, Super Ceramic filler may be added to this product to produce a paste of the required consistency.

2. TYPICAL USES

- Rapid-cure protective coating for concrete floors and prepared substrates
- Seal and build coat where a fast return to service is required
- Protective coating over repaired or patched areas
- Binder for decorative and slip-resistant broadcast materials
- Coating of plant rooms, workshops, warehouses and trafficked areas

3. KEY FEATURES & BENEFITS

Rapid cure	Ready to grind and profile approximately half an hour after application at 25 °C; recoat after 1 hour.
High strength	Coating strength typically greater than 50 MPa when fully cured. Typical value; confirm against project specification where a certified figure is required.
100 % solids	No solvent, no VOC and no shrinkage on cure.
Moisture tolerant	Tolerates damp substrates, provided there is no standing water and the dry test in Section 7 has been carried out.
Smooth seamless finish	Self-levelling on horizontal surfaces, producing a clear, hygienic, easily cleaned film.
Simple to apply	Straightforward 1.5 : 1 mix ratio, applied by roller, brush or squeegee with minimal equipment.
Thermal stability	Maintains performance in dry heat up to approximately 140 °C once fully cured.
Chemical and traffic resistance	Withstands a wide range of chemicals, heavy pedestrian use and vehicular traffic. See Section 6.
Tintable and decorative	Accepts Shimicoat tints, metallics, flake and glitter for decorative finishes.

¹ SHIMICOAT Proprietary Coating System

4. KIT SIZES

Kit size	Total volume	Part A — Resin	Part B — Hardener
Mini	1.25 L	0.75 L	0.5 L
Small	2.5 L	1.5 L	1 L
Medium	5 L	3 L	2 L
Large	7.5 L	4.5 L	3 L
XL	12.5 L	7.5 L	5 L
XXL	25 L	15 L	10 L

5. TECHNICAL PROPERTIES

Property	Typical value
Composition	Two-component, 100 % solids aliphatic polyaspartic
Mix ratio	1.5 parts A : 1 part B, by volume or by weight
Solids content	100 % — solvent free
VOC content	Nil
Colour	Ultra-clear and transparent. Tintable with Shimicoat polyaspartic tints.
Finish	Smooth, seamless, semi-gloss to gloss
Pot life at 25 °C	5 minutes
Tack free at 25 °C	15 minutes
Ready to grind and profile	Approximately 30 minutes at 25 °C, depending on temperature and humidity
Recoat / overcoat	1 hour
Full cure	7 days — vehicle traffic
Coating strength	> 50 MPa (typical, fully cured)
Maximum service temperature	140 °C (typical, dry heat, fully cured)
Application temperature	10 °C to 35 °C
Shelf life	24 months in sealed original containers, stored out of direct sunlight and heat

Values are typical for the product as supplied and are not a specification. Cure and pot life vary with temperature, humidity, film thickness and batch size.

6. CHEMICAL RESISTANCE

Media	Reagent	Rating
Acids	Hydrochloric acid	B
	Sulphuric acid	C
	Acetic acid	B
	Nitric acid (10 % max.)	C
	Phosphoric acid (25 % max.)	B

Alkalies	Sodium hydroxide	B
	Ammonium hydroxide	A
	Potassium hydroxide	B
	Sodium hypochlorite (bleach)	A
Solvents	Xylene	A
	Methyl ethyl ketone (MEK)	C
	Acetone	B
	Ethanol	A
Fuels	Diesel	A
	Petrol	A
	Kerosene	A
Foodstuffs	Wine and beer	A

Key to ratings

Code	Resistance	Description
A	Excellent	Suitable for long-term immersion
B	Good	Suitable for short-term immersion (3 days maximum)
C	Caution	Brief contact only — splash and spill
D	Not recommended	Do not expose

Indicative reference only, determined under laboratory conditions at 25 °C on a fully cured film. Carry out a site trial where chemical exposure is critical.

General resistance summary

Heat	Up to 140 °C (typical, dry heat, fully cured)
Water	Excellent — resists continuous and long-term immersion in fresh and salt water
Salts and brines	Resists continuous and long-term immersion in all salt and brine systems
Alkalies	Resists short-term immersion in all alkalies
Acids	Resists splash and spill in all acids
Solvents	Resistant to most hydrocarbon solvents and alcohols
Abrasion	Excellent once fully cured (7 days)

7. SURFACE PREPARATION

1. Ensure the surface is clean, dry and free of dirt, grease, oil, paint, curing compounds, laitance and all other contaminants.
2. Remove oil contamination with a degreaser and an alkaline cleaner, then pressure wash.
3. Grind or sand the surface to a mechanical key. Grinding is recommended before applying any Shimicoat polyaspartic product, as it gives the best adhesion. Where grinding is not practicable, acid-etch to open the porosity, then wash, rinse and flush to neutralise.
4. Remove all loose material, then vacuum or blow the surface clean and mask off areas that are not to be coated.
5. Run a dry test before coating: tape a plastic sheet over a small area of the surface, leave it for one hour, then lift it. If there is no moisture on either face, the surface is dry enough to coat.

Important

New concrete must be allowed to cure fully — a minimum of 28 days — before application. Refer to the Shimicoat Surface Preparation guide for further detail.

8. MIXING

1. Measure the components by volume or by weight at 1.5 parts Part A to 1 part Part B.
2. Combine Part B (hardener) into Part A (resin) and mix for 2 to 3 minutes with a slow-speed drill mixer at no more than 750 rpm. Scrape the sides and base of the container so that no unmixed material remains, and continue until the blend is uniform and free of streaks.
3. For decorative work, add Shimicoat tints, metallics or glitters to Part A first and disperse fully before adding Part B.
4. Where a trowellable mortar is required, add Super Ceramic filler to the mixed resin at up to 200 % by volume. Refer to the SHIMISPART™ RAPID REPAIR Technical Data Sheet for the consistency guide.
5. The product does not require dilution. Mix only the quantity that can be applied within the 5-minute pot life.

9. APPLICATION

1. Decant the mixed resin into a roller tray or pour it directly onto the prepared surface immediately after mixing — do not leave it standing in the mixing bucket, where the exotherm will shorten the pot life further.
2. Apply by roller, brush or squeegee. On horizontal surfaces, pour and spread with a squeegee, then back-roll to even the film.
3. Use steady, long strokes. Do not overwork the roller or push it too quickly, as this traps air and causes bubbles in the film.
4. Maintain a wet edge at all times and work to a natural break. Because the pot life is 5 minutes, plan the work area and have a second operator mixing if the area is large.
5. Allow 1 hour before recoating. Lightly abrade and vacuum between coats where the recoat window has been exceeded.

10. CURE SCHEDULE & RETURN TO SERVICE

Surface temperature	Pot life (min)	Surface dry (h)	Initial cure (h)	Recoat (h)	Full cure (days)
10 °C	10	1.5	2	2	7
20 °C	7	1	1.5	1.5	7
25 °C	5	0.5	1	1	7
30 °C	5	0.5	1	1	7

High temperatures, low humidity and windy conditions shorten these times. Keep foot traffic off for at least 16 hours and vehicles off for at least 7 days.

11. CLEANING

Clean tools and uncured spills with EpoDil thinner and diluent, or with xylene. Cured material can only be removed mechanically. Clean tools immediately after use — the pot life is short and hardened resin will not release from equipment.

12. STORAGE & SHELF LIFE

Shelf life	24 months from date of manufacture in sealed, unopened original containers.
Storage	Store between 10 °C and 30 °C, out of direct sunlight and away from heat. Keep containers tightly sealed when not in use. Protect Part B from moisture ingress.
Before use	Stir each component uniformly for 3 minutes before measuring and mixing.

13. HEALTH, SAFETY & HANDLING

- Do not apply if rain is expected within 24 hours of application.
- Not recommended for use below 10 °C or above 35 °C.
- Avoid application to hot surfaces or in direct sun. Never leave containers in direct sun during application — heat sharply shortens the pot life.
- Do not apply if the concrete has a patchy appearance, which suggests moisture is present. Carry out the dry test first and apply only when the surface is dry.
- New concrete must be allowed to cure fully, a minimum of 28 days, before application.
- Keep foot traffic off the coating for at least 16 hours and vehicles off for at least 7 days. Full hardness develops over 7 days.
- Heavy vehicles with hot tyres can damage a newly coated floor. Place a mat under each tyre for the first few weeks where vehicles are parked in one position.
- All polyaspartic coatings may yellow slightly over time. Overcoat with SHIMISPART™ Topcoat UV Shield where long-term colour stability outdoors is required.
- Keep containers sealed when not in use.
- Wear appropriate personal protective equipment and ensure adequate ventilation. Part B contains an aliphatic polyisocyanate — read the Safety Data Sheet before use.

Safety Data Sheet

A Safety Data Sheet for each component of this product is available at www.shimi.com.au or on request from info@shimi.com.au. Read it before use.

14. CONTACT DETAILS & DISCLAIMER

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Safety Data Sheet	A Safety Data Sheet for each component of this product is available at www.shimi.com.au or on request from info@shimi.com.au . Read it before use.

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