INSTALLATION INSTRUCTIONS

SHIMISPART™ RAPID REPAIR

Rapid-Cure Polyaspartic Mortar Repair Kit

High-strength structural polyaspartic repair mortar with Super Ceramic reinforcement Product code SP01

Before you start

Read these instructions and the Safety Data Sheet for each component before starting work. Do not apply if rain is expected within 24 hours, on hot surfaces or in direct sun. Keep a wet edge at all times and mix only what you can apply within the pot life.

1. SYSTEM OVERVIEW

SHIMISPART™ RAPID REPAIR is a high-strength, moisture-tolerant, structural polyaspartic mortar for fast, reliable patching and surface repair. It combines Rapid Cure Clear Polyaspartic resin (100 % solids) with Super Ceramic reinforcement filler to produce a paste of adjustable consistency, suitable for repairing concrete, metal, timber and plastic substrates.

2. PRODUCTS & MATERIALS

Part A — Rapid Cure Polyaspartic Resin	Supplied in the kit
Part B — Aliphatic Polyisocyanate Hardener	Supplied in the kit
Part C — Super Ceramic Reinforcement Filler	Supplied in the kit
EpoDil thinner & diluent	For tool cleaning. Not required for dilution.

Kit sizes available

Kit size	Total volume	Rapid Cure Clear Polyaspartic (Parts A + B)	Super Ceramic Filler (Part C)
Mini	2.25 L	1.25 L (0.75 L A + 0.5 L B)	1 L (0.2 kg)
Small	4.5 L	2.5 L (1.5 L A + 1 L B)	2 L (0.4 kg)
Medium	10 L	5 L (3 L A + 2 L B)	5 L (2 kg)
Large	17.5 L	7.5 L (4.5 L A + 3 L B)	10 L (4 kg)
X Large	32.5 L	12.5 L (7.5 L A + 5 L B)	20 L (8 kg)

3. TOOLS REQUIRED

- Slow-speed electric drill and mixing paddle (750 rpm maximum)
- Clean mixing buckets or containers
- Trowel, scraper and spatula
- Squeegee (for larger surface fills)
- Angle grinder or sander with dust extraction
- Vacuum or blower
- Masking tape
- Measuring jugs or scales

- PPE — chemical-resistant gloves, safety goggles, coveralls and a Class A1 / P2 respirator

4. STEP 1 — 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.

5. STEP 2 — MIXING

1. Measure the resin 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. Add the Super Ceramic filler (Part C) to the mixed resin and blend until smooth. Add the filler progressively until the consistency in Section 8 matches the repair you are making.
4. Where a slightly smoother paste is needed, EpoDil thinner and diluent may be added at up to 5 % of the mixed volume. The product does not otherwise require dilution.
5. Mix only the quantity that can be applied within the 5-minute pot life. Pot life shortens sharply as temperature rises and as batch size increases.

Consistency guide — Super Ceramic filler loading

Consistency	Filler (% of mixed resin volume)	Typical repair	Mobility
Thin slurry — syrup	20 %	Hairline cracks	Highly mobile — self-levelling
Slurry — honey	50 %	Small cracks	Mobile
Thick slurry — tomato sauce	75 %	Large surface fills	Slow flowing
Paste — mayonnaise	100 %	Filling and repairing larger cracks	Trowellable
Stiff paste — mashed potato	150 %	Rebuilds and deep fills	Low mobility
Putty — peanut butter	200 %	Leak stopping, vertical and overhead work	Zero mobility — non-sag

6. STEP 3 — APPLICATION

1. Rout out and clean cracks, holes and damaged areas. Remove all loose material and vacuum the area.
2. For cracks and holes: press the mortar firmly into the void with a trowel, scraper or spatula, working it well into the base so no air is trapped. Strike off flush with the surrounding surface and remove excess with the scraper.
3. For larger surface fills: pour the mixed mortar onto the area and spread it out with a squeegee, then level with a trowel.

4. Work quickly and keep a wet edge. Do not attempt to re-work material that has begun to gel — it will tear rather than flow.
5. Allow the repair to harden, then sand or grind flush. Overcoat with the selected Shimicoat system once the surface has been profiled and vacuumed.

7. STEP 4 — CURING & AFTERCARE

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

- Keep foot traffic off the finished surface for at least 16 hours.
- Keep vehicles off for at least 7 days. Full hardness develops over 7 days.
- Where vehicles are parked in one position, place a mat under each tyre for the first few weeks — hot tyres can mark a newly finished surface.
- Clean the finished surface with a soft broom or mop and a pH-neutral detergent. Do not use aggressive solvents or abrasive pads.

8. WARNINGS

- 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 repair 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 repaired surface. 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. Use 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.

9. 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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