REZCRETE 3D — 4000 Series

Model: 4003D • Generic type: Polymer-quartz epoxy repair mortar

Effective Date: September 2026

1. PRODUCT DESCRIPTION

REZCRETE 3D is a three-component, 100% solids, polymer-quartz aggregate repair mortar formulated to rebuild and reshape damaged concrete, stonework and masonry. It is moldable and formable by hand, holds its shape on vertical and overhead surfaces, and cures substantially harder than the concrete it repairs.

REZCRETE 3D is supplied as a complete kit containing Part A resin, Part B hardener, Part C aggregate, gloves and a trowel tool. The neat resin and hardener are mixed first and applied to the substrate as a bonding coat; aggregate is then blended into the remaining mixed resin and hardener and troweled or hand-formed to the required profile. Once cured, the material can be machined, sanded and painted, and it color-matches typical gray concrete without additional finishing.

Typical applications include curbs, cinder block, stucco, columns, steps, walls, ceilings and other three-dimensional repairs where a pourable or self-leveling patch will not hold shape.

Models — same material, different sizes

Model #	Description	Amount
4003D	REZCRETE 3D kit — resin / hardener / aggregate, gloves and trowel tool	5 gallon pail

** Other sizes and amounts available on request.*

2. FEATURES & BENEFITS

- Moldable, non-sag consistency — suited to vertical, overhead and three-dimensional repairs
- Hand-formable; shapes with a trowel, a brush or gloved hands
- 100% solids — no solvents, no VOCs
- Cures harder than concrete and reaches full mechanical hardness in 5 hours at 75 °F (24 °C)
- Lightweight in place relative to cementitious repair mortars
- Close color match to gray concrete — no finish coat required for appearance
- Can be machined, sanded, drilled and painted after cure
- Minimal surface preparation — a clean, dry, sound substrate is sufficient; no abrasive blasting required
- Broad chemical resistance, including acids, alkalis and fuels

3. RECOMMENDED USES

- Curb, step and sidewalk edge rebuilding
- Cinder block, CMU and stucco repair
- Column, pillar and pilaster restoration
- Wall and ceiling patching
- Statuary, fountains and other ornamental concrete or stonework
- Spall and void filling on vertical and overhead surfaces
- Any three-dimensional concrete repair requiring a shape-holding compound

4. SELECTION & SPECIFICATION DATA

Generic type	Polymer-quartz epoxy repair mortar
Components	Three — Part A resin, Part B hardener, Part C aggregate
Color, cured	Concrete gray
Solids content by volume	100%
VOC	0 g/L
Primer	Self-priming — apply neat Part A / Part B at 3 – 5 mils as a bonding coat
Recommended thickness	As required; 1/4 in. (6 mm) minimum
Mixing ratio — by volume	1.6 : 1 (Part A to Part B), aggregate added to suit
Mixing ratio — by weight	15 : 8 : 77 (Part A : Part B : Part C aggregate)
Pot life	15 minutes at 77 °F (25 °C)
Touch-free time	1.5 hours at 75 °F (24 °C)
Hard-dry time	2 hours at 75 °F (24 °C)
Full mechanical hardness	5 hours at 75 °F (24 °C)
Full chemical resistance	7 days at 75 °F (24 °C)
Dry service temperature	300 °F (149 °C)
Flash point	Greater than 250 °F (121 °C)

Component properties

Property	Part A — Resin	Part B — Hardener	Part C — Aggregate
Appearance	Liquid	Liquid	Pre-wet powder
Color	Light beige	Clear amber	Light gray
Viscosity at 77 °F (25 °C)	600 cps	8,000 – 10,000 cps	—
Density	1.15	1.06	2.65
Odor	Faint epoxy	—	—

5. SUBSTRATES & SURFACE PREPARATION

The cleaner and better-prepared the surface, the better the adhesion to the substrate.

Substrate	Preparation
General	Surfaces must be clean, dry and structurally sound. Remove dirt, dust, oil, grease, laitance, loose material and other contaminants.
Concrete / CMU	New concrete must be cured a minimum of 7 days at 75 °F (24 °C) and 50% relative humidity or equivalent. Prepare in accordance with ASTM D4258 and ASTM D4259. Voids may require surfacing. Mortar joints should be cured a minimum of 15 days.
Stone, stucco, masonry	Clean and dry. Remove failed or friable material back to a sound edge before rebuilding.

** For previously coated or painted surfaces, unusual substrates or chemical exposure, contact the Dynesic Technical Service Department.*

6. CHEMICAL RESISTANCE

Acetic acid 10%	Ammonium hydroxide 10%	Black liquor	Bleach
Gasoline	Hydrochloric acid 38%	Isopropyl alcohol	Jet fuel
Kerosene	Lactic acid 10%	Mineral acids	Nitric acid 25%
Phosphates (most)	Phosphoric acid	Potassium hydroxide 30%	Sodium hydroxide 40%
Sulfuric acid 75%	1,1,1-Trichloroethane	White liquor	

** Call or email for a complete chemical resistance list.*

7. MIXING

Mixing	Power mix Part A and Part B separately, then combine and power mix until uniform. Add Part C aggregate to the mixed resin and hardener at the consistency required for the repair and power mix again. Do not mix partial kits.
Mix ratio — by volume	1.6 : 1 (Part A to Part B)
Mix ratio — by weight	15 : 8 : 77 (Part A : Part B : Part C aggregate)
Thinning	Do not thin.
Pot life	15 minutes at 77 °F (25 °C)

** Do not leave mixed material in a deep mass unless immediate use is planned — exothermic heat generated during cure can substantially shorten working life. Spread the material onto the work surface or into a shallow working container.*

8. APPLICATION GUIDELINES

Job-site conditions may require adjustments to achieve the desired result. REZCRETE 3D is designed primarily for trowel and hand-formed application.

Bonding coat	Apply mixed Part A / Part B at 3 – 5 mils directly to the prepared substrate to strengthen the bond before the aggregate-filled material is placed.
Trowel	Add aggregate to the remaining mixed Part A / Part B, then trowel to the required thickness while the bonding coat is still wet.
Hand forming	The material may be shaped and sculpted by hand using the gloves supplied in the kit.
Finishing	The uncured surface may be smoothed with a medium-bristle brush and denatured alcohol.
Machining	After full cure, REZCRETE 3D may be sanded, drilled, machined and painted using conventional tools.

9. CURE SCHEDULE & RE-COAT WINDOW

Stage	75 °F (24 °C)	96 °F (36 °C)	120 °F (49 °C)
Touch free	1.5 hours	1 hour	45 minutes
Hard dry — resists pedestrian traffic	2 hours	1.5 hours	1 hour
Full mechanical hardness	5 hours	3 hours	2 hours
Full chemical resistance	7 days	5 days	3 days

10. PERFORMANCE DATA

Test / property	System / condition	Result
ASTM D4541 — Direct pull adhesion	Concrete	700 psi — concrete substrate failure
ASTM D790 — Flexural strength	—	9,500 psi
ASTM D4060 — Abrasion resistance	CS-17 wheel, 1 kg load, 1,000 cycles	118 mg weight loss
ASTM D2794 — Impact resistance	—	20 lb
ASTM D2486 — Scrub resistance	—	> 10,000 cycles
ASTM D2485 — Dry heat resistance	—	300 °F (149 °C)
Flash point	—	Greater than 250 °F (121 °C)
VOC	Mixed system	0 g/L

** Adhesion tested to ASTM D4541 on concrete failed within the concrete substrate rather than at the bond line, indicating bond strength in excess of the tensile strength of the concrete tested.*

11. PACKAGING, HANDLING & STORAGE

Shelf life	12 months at 75 °F (24 °C) in original unopened packaging under recommended storage conditions
Shipping weight — 5 gallon kit	12 lb (5.45 kg)
Storage temperature	40 – 110 °F (4 – 43 °C)
Storage humidity	0 – 100% relative humidity
Storage	Store indoors. Product is not affected by excursions down to 10 °F for no more than 14 days. Inspect product before use to confirm it is smooth and homogeneous when properly mixed.

12. CLEANUP & SAFETY

Cleanup	Use a 50/50 mixture of MIBK and butyl acetate, or MEK. Skin may be cleaned with denatured alcohol, preferably ethanol. In case of spillage, absorb and dispose of in accordance with applicable local regulations.
Ventilation	When used in enclosed areas, provide thorough air circulation during and after application until the material is cured. Test and monitor exposure levels to confirm all personnel remain below applicable guidelines.
Safety	Read and follow all caution statements on this Technical Data Sheet and the product Safety Data Sheets. Wear appropriate protective clothing, eye protection and gloves.

13. FIELD REFERENCE

Recommended application sequence

1. Inspect the substrate and remove loose, failed or friable material back to a sound edge.
2. Clean and dry the repair area; remove oil, grease, dust, laitance and other bond-breaking substances.
3. Power mix Part A and Part B separately, then combine and mix until uniform.
4. Apply the neat mixed resin and hardener to the prepared surface at 3 – 5 mils as a bonding coat.
5. Blend Part C aggregate into the remaining mixed material to the consistency required for the repair.
6. Trowel or hand-form the material to profile at a minimum thickness of 1/4 in. (6 mm) while the bonding coat is still wet.
7. Smooth the uncured surface with a medium-bristle brush and denatured alcohol as required.
8. Observe the applicable cure schedule before returning the repair to service.

Key field notes

- Do not mix partial kits — the resin, hardener and aggregate are proportioned as a complete unit.
- Pot life is short. Mix only what can be placed within 15 minutes and spread mixed material promptly rather than holding it in a deep container.
- Place the aggregate-filled material while the bonding coat is still wet for the strongest bond.
- REZCRETE 3D is a shape-holding repair mortar; it is not a pourable or self-leveling patch.
- For immersion service, previously coated surfaces or chemical exposure, contact Dynesic Technical Service before application.

14. ABOUT DYNESIC TECHNOLOGIES

Dynesic produces chemically engineered coatings, adhesives and sealants designed for demanding corrosion protection, repair and containment applications. Dynesic systems protect steel, ductile iron, concrete and other substrates in residential, commercial and industrial environments worldwide.

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