PRODUCT DATA

QUALITY | SERVICE | INTEGRITY
W. R. MEADOWS®
A Family Company Since 1926

DATA SHEET NO. 3700-652

REZI-WELD™ GEL PASTE STATE
Construction Epoxy

DESCRIPTION
REZI-WELD GEL PASTE STATE is a high viscosity, high modulus, rapid-setting, thixotrophic, structural, epoxy-based, chemical anchoring/bonding adhesive and injection gel. REZI-WELD GEL PASTE STATE provides high mechanical properties and bond strength to concrete and various other substrates. REZI-WELD GEL PASTE STATE is a two-component, moisture insensitive construction epoxy, which can be troweled, brushed, injected, or pumped.

USES
REZI-WELD GEL PASTE STATE is an easy-to-mix, easy-to-apply paste, ideal for filling cracks, anchoring, doweling, making small patches, and general repairs. It is also suitable for surface sealing prior to pressure injecting. When used as an adhesive, REZI-WELD GEL PASTE STATE fills the voids between the surfaces to be bonded.

PACKAGING
37.85 Litre (10 U.S. Gallon) Units
266 mL (9 Ounce) Universal Cartridges, 12/Case
651 mL (22 Ounce) Unitized Cartridges, 12/Case

COVERAGE
651 mL (22 oz) cartridge yields 627 mL (21.2 fluid oz/38 cu. inches
266 mL (9.0 oz) cartridge yields 245 mL (8.3 fluid oz/14.9 cu. inches)
37.85 Litre (10 gal.) unit yields 37.85 L (2,310 cubic inches)

SHELF LIFE
Two years in unopened container.

SPECIFICATIONS
ASTM C 881, Type I, II, IV, & V, Grade 3, Class A, B & C
AASHTO M 235, Type I, II, IV & V, Grade 3, Class A, B & C
I.C.C. AC-58 ER #4996

TECHNICAL DATA [Tests conducted at 23.9°C (75˚F)]

TEST METHOD	RESULTS
Consistency: (Per ASTM C 881)	(Gel)
Mix Ratio	1:1 by Volume
Gel Time (Pot Life/Working Time) per ASTM C 881 (60 gms)	14 - 20 Minutes
Cure Time (Minimum Bolt-Up Time)	4 Hours @ 23.9° C (75° F)
Slant Shear Bond Strength (Per ASTM C 882)	
@ 2 Days	24.6 MPa (3,580 psi)
@ 14 Days	27.1 MPa (3,940 psi)
Absorption (Per ASTM D 570)	0.53%
Heat Deflection Temperature (Per ASTM D 648)	75° C (132° F)
Linear Coefficient of Shrinkage (Per ASTM D 2566)	0.002
Tensile Strength (Per ASTM C 638 @ 7 Days)	26.2 MPa (3,080 psi)
Tensile Elongation (Per ASTM D 638)	3.3%
Compressive Yield Strength (Per ASTM D 695) @ 7 Days	80.7 MPa (11,708 psi)
Compressive Modulus (Per ASTM D 695) @ 7 Days	1,682.7 MPa (244,000 psi)

Colour: PART A - White
PART B – Black
Mixed - Gray

All technical data is typical information and will vary due to testing methods, condition procedures, batching, and raw material variances.

APPLICATION
Surface Preparation ... Mechanically roughen or abrasive blast concrete substrate. Remove all unsound concrete and provide a profiled surface. Substrate must be structurally sound, dust-free, and free of grease, oil, dirt, curing compounds, release agents, or any other surface or penetrated contaminants, coatings, sealers, or similar that will adversely affect bond. Sanding, acid etching, cup-grinding, or wire-abrading are not approved concrete surface preparation methods. Vacuum or blow away dust with oil-free compressed air.

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Smooth surfaces, such as wood, require sanding or other mechanical abrasion. Exposed steel surfaces should be sandblasted and vacuumed clean . . . if not possible, degrease the surface and use sandpaper or a wire brush to reveal continuous, bright metal.

Mixing (Bulk Units) ... Condition all components to above 18.3° C (65º F) for 24 hours prior to use. Use the double-boiler method or store material in a warm room for 24 hours prior to application. Premix each component. Mechanically mix at slow speed (600-900 rpm) using a drill and Jiffy® Blade or drum mixer for three minutes or until completely mixed while scraping the sides to ensure complete blending of components. The mixed product should be uniform gray in color and not show streaks. Avoid air entrapment. Mix only very small quantities by hand for a minimum of three minutes or until sufficiently blended together using the supplied stirring stick. Scrape the sides of the container to ensure complete blending of the components. Mix only the amount of epoxy that can be applied within the product's pot life. Pot life (working time) will decrease as the ambient temperature and/or mass size increases.

Metal Anchors in Preformed Holes in Concrete … Preformed holes should be approximately 3.175 mm (1/8") larger in diameter than the anchor bolt diameter. The depth of the hole should be 10-15 times the bolt diameter. Fill the hole from the bottom up, about half way, with mixed epoxy and place the bolt, dowel, or rebar. Top off with more epoxy and finish. All anchoring and doweling configurations must be approved and/or designed by an engineer.

Cracks in Vertical Or Overhead Structures … For non-moving cracks and joints, use a trowel to apply the paste full depth and strike off flush at the surface in a single pass. For structural crack injection repairs, use a dual-component gel pump. REZI-WELD GEL PASTE STATE is not recommended for overhead applications.

Patches in Concrete Structures … REZI-WELD GEL PASTE STATE makes a high-strength material for patching, topping, grouting, and repairing spalls and other defects in concrete. Average thickness of the patch or topping should be no greater than 6.35 - 12.7 mm (¼" - ½") per lift, not to exceed a total depth of 38 mm (1 ½").

Surface Sealing … Apply mixed epoxy over entire length of crack to be pressure injected. Ensure complete coverage to avoid leaking. Adjacent concrete surfaces must be mechanically abraded to ensure a proper bond. Allow for suitable cure time prior to injecting.

Bonding Fresh Concrete to Hardened Concrete Or Hardened Concrete to Hardened Concrete … Use a stiff masonry brush to apply a layer of mixed epoxy to concrete surfaces. Application rate should be 2.26 - 2.66 m^2/L (85 - 100 $ft.^2$/gal.) Place fresh or hardened concrete to mixed REZI-WELD GEL PASTE STATE prior to epoxy becoming tack-free. If REZI-WELD GEL PASTE STATE becomes tack-free prior to application of fresh or hardened concrete, consult a W. R. MEADOWS representative.

Other Bonding … To bond metal to concrete, apply a layer of the adhesive be 2.26 - 2.66 m^2/L (85 - 100 $ft.^2$/gal.) (20 mils) to the prepared surface and join immediately. Clamping pressure, beyond what will hold parts in place, is not necessary.

Cleanup … Clean tools and equipment immediately with toluene or xylene. Clean equipment away from all ignition sources.

PRECAUTIONS

Failure to follow all industry standard practices, such as the American Concrete Institute (ACI), will compromise the performance of REZI-WELD GEL PASTE STATE. Not intended for submerged or saturated conditions. High ambient (air), product, and substrate temperatures will decrease working time. Overhead applications must be approved and/or designed by a professional engineer to ensure durability and long term bonding/anchoring. Creep and service temperature must be considered in structural applications. Cold ambient (air), product, and/or substrate temperature will increase working, cure, and bolt-up time. This data sheet does not supersede engineering or architectural recommendations or drawings. A professional engineer must determine suitability of REZI-WELD GEL PASTE STATE for anchoring, doweling, or similar applications. This is not a standalone engineering document. DO NOT DILUTE. Mix complete units only. Not recommended for use when the concrete temperature has been below 4° C 40° F () for the past 24 hours or when rain is imminent. Do not seal cracks under hydrostatic pressure. Do not warm epoxy over direct heat.

HEALTH AND SAFETY

Avoid breathing vapors or allowing epoxy-containing solvent to contact skin. Should this material come in contact with the skin, wash thoroughly with soap and water, not solvent. Unused epoxy will generate excessive heat, especially in large quantities. Unused epoxy should be mixed with dry sand in the container to help lower heat. Refer to Product Material Safety Data Sheet for complete health and safety information.

MASTERFORMAT NUMBER AND TITLE

03 01 00 – Maintenance of Concrete
03 63 00 – Epoxy Grouting

LEED INFORMATION

May help contribute to LEED credits:

- IEQ Credit 4.1: Low-Emitting Materials – Adhesives and Sealants
- MR Credit 2: Construction Waste Management
- MR Credit 5: Regional Materials

For most recent data sheet, further LEED information, and MSDS, visit www.wrmeadows.com.

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