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REZI-WELD™ 1000

Multi-Purpose, Medium Viscosity Construction Epoxy

DESCRIPTION

REZI-WELD 1000 is a medium-viscosity, two-component, construction-grade structural epoxy adhesive. It is moisture-insensitive and resistant to many chemicals. High modulus, high strength REZI-WELD 1000 is color coded to assure proper mixing and is self-leveling and easy to apply.

USES

As a neat mix, REZI-WELD 1000 is used to bond hardened concrete to fresh or hardened concrete. It can also be used to bond metals and other materials to hardened concrete. REZI-WELD 1000 is also used to secure metal anchors, bolts, rebar, and dowels in concrete. Mixed with sand or aggregates, REZI-WELD 1000 may be used to patch spalls or defects in concrete. A thin film coating sprinkled with sand or grit becomes a durable, non-skid interior topping.

FEATURES/BENEFITS

- Offers high modulus, high strength, and self-leveling characteristics.
- Resists many industrial chemicals and is moisture insensitive.
- Easy to apply ... may be sprayed.
- Furnished in unique, color-coded, unitized, pre-measured packaging to assure proper mixing ... eliminates mishandling and mismatching components.
- May be extended with sand or aggregates to patch minor spalls and defects in concrete.
- Provides a non-skid interior topping when sprinkled with sand or grit.

PACKAGING

- 1 Quart (.95 Liter) Units
- 1 Gallon (3.79 Liter) Units
- 2 Gallon (7.58 Liter) Units
- 10 Gallon (37.9 Liter) Units

COVERAGE

One gallon (3.79 L) neat yields 231 cubic inches (3785 cm³).

SHELF LIFE

One year when stored in unopened containers in dry conditions. Store between 40° - 95° F (4.4° - 35° C). Do not store product outside.

SPECIFICATIONS

- AASHTO M 235, Type I, II, IV & V, Grade 2, Classes B & C
- ASTM C 881, Type I, II, IV & V, Grade 2, Classes B & C
- Various Departments of Transportation Approvals

TECHNICAL DATA*

The following physical properties were determined at a 1:1 mix ratio of A: B by volume, cured at 77° F (25° C) & 50% RH

Test Method	Actual	Required per ASTM C 881-99, TYPE IV
Gel Time Per ASTM C 881 ¹	37 minutes	Minimum 30 minutes
Viscosity Per ASTM D 2393 Mixed	3,500 cps	Maximum 10,000 cps
Compressive Strength Per ASTM D 695 @ 1 day @ 7 days ¹	10,000 psi (70 MPa) 12,500 psi (79 MPa)	Not Required Minimum 10,000 psi (70 MPa)
Compressive Modulus Per ASTM D 695-96 ¹ @ 7 Days	530,000 psi (3655 MPa)	Minimum 200,000 psi (1,400 MPa)
Slant Shear Bond Strength Per ASTM C 882 ¹ , Moist Cured @ 2 days (Old to Old Concrete) @ 14 days (Old to Old Concrete) @ 14 days (New to Old Concrete)	1,250 psi (8.6 MPa) 1,900 psi (13.1 MPa) 2,100 psi (14.5 MPa)	Minimum 1,000 psi (7.0 MPa) Minimum 1,500 psi (10.0 MPa) Minimum 1,500 psi (10.0 MPa)
Tensile Strength Per ASTM D 638 ¹ @ 7 days	7,250 psi (51 MPa)	Minimum 7,000 psi (48 MPa)
Tensile Elongation Per ASTM D 638 ¹ @ 7 days	1.5%	Minimum 1%
Heat Deflection Temperature Per ASTM D 648 ¹ @ 7 days	135° F (57° C)	Minimum 120° F (50° C)
Linear Coefficient of Shrinkage Per ASTM D 2566 ¹ @ 7 days	0.002	Maximum 0.005
Water Absorption Per ASTM D 570 ¹ @ 7 Days	0.41% w/w	Maximum 1.0% w/w

Colors: Part A ... White
Part B ... Black
Pot Life: 35 - 45 minutes @ 77° F (25° C)
Cure Time: 7 days @ 77° F (25° C)

Mix ratio: 1:1 by volume

All technical data is typical information, but may vary due to testing methods, conditions, and operators.

¹Independent reports are available upon request.

CONTINUED ON REVERSE SIDE...

APPLICATION

Surface Preparation ... Mechanically abrade all surfaces to be bonded. All surfaces to be bonded must be free of standing water and completely clean of dirt, rust, curing compounds, grease, oil, paint, and unsound materials which would prevent a solid bond. Vacuum or blow dust away with oil-free, compressed air. Smooth surfaces 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 ... Condition all components to 60 - 85° F (15.6° - 29.4° C) for 24 hours prior to use. Use the double-boiler method or store material in a warm room prior to application. Pre-mix 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. Scrape 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 will decrease as the ambient temperature and/or mass size increases.

Bonding Fresh Concrete to Hardened Concrete Or Hardened Concrete to Hardened Concrete ... Use a stiff masonry brush or airless spray equipment to apply a layer of mixed epoxy to concrete surfaces. Application rate should be 85 - 100 ft.²/gal. (2.09 - 2.45 m²/L) (20 mils). Place fresh or hardened concrete to mixed REZI-WELD 1000 prior to epoxy adhesive becoming tack-free. If REZI-WELD 1000 becomes tack-free prior to application of fresh or hardened concrete, consult a W. R. MEADOWS representative. NOTE: Cured concrete is defined as concrete that has achieved a minimum 80% of designed compressive strength.

Other Bonding ... To bond metal to concrete, apply a layer of the adhesive at 85-100 ft.²/gal. (2.09 - 2.45 m²/L) (20 mils) to the prepared surfaces and join immediately. Clamping pressure beyond what will hold parts in place is not necessary.

Aggregates for Epoxy-Resin Mortars ... Combine clean, dry aggregate to freshly mixed epoxy in ratio of one part epoxy to 1 - 4 parts of dry, clean, graded aggregate by volume. A rotary drum mixer with a stationary paddle is recommended for blending aggregate and epoxy. Apply a thin coating of aggregate-free epoxy to the prepared surface as a primer. Patch thickness should not exceed 2" (50.8 mm) per lift.

**LIMITED WARRANTY**

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

Metal Anchors in Preformed Holes in Concrete ... Preformed holes should be approximately ¼" (6.35 mm) 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 or doweling configurations must be approved or designed by an engineer.

Interior Non-Skid Topping ... Apply mixed epoxy at a rate not to exceed 80 ft.²/gal. (1.97 m²/L). Spread sand thinly over wet epoxy and embed the grains with a mohair roller. For heavy coverage, apply a layer of sand or grit over the epoxy and allow to set. Blow excess sand away. NOTE: REZI-WELD 1000 IS NOT TO BE USED AS A FLOOR COVERING OR PROTECTIVE TREATMENT.

CLEANUP

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

PRECAUTIONS

DO NOT DILUTE. Mix complete units only. Not recommended for use when the concrete temperature has been below 40° F (4° C) for the past 24 hours. Do not use to seal cracks under hydrostatic pressure. Do not warm epoxy over direct heat.

HEALTH AND SAFETY

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 Safety Data Sheet for complete health and safety information.

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 SDS, visit www.wrmeadows.com.