

PRODUCT DESCRIPTION

Res-Tek RT-05 is a 2-component, 100% reactive, methacrylate (MMA) based polymer concrete. The system consists of RT-05 polymer concrete liquid and RT-05 polymer concrete powder. The RT-05 system can be used for shallow and medium depth patches, underlayment, grouting, and spall repair. The system can be filled with graded aggregate and used for deep repair of concrete slabs or placed in forms like conventional (cementitious) concrete. The Res-Tek RT-05 system is designed with a combination of high tensile strength and low compressive modulus which makes it appropriate for both indoor and outdoor applications.

SYSTEM PROPERTIES

- Excellent bonding capabilities — achieves a chemical bond to other Res-Tek system components.
- UV resistant for indoor or outdoor application.
- Cures fast — under an hour.
- Cures at a wide range of temperatures. (even below freezing)
- 100% reactive.
- On-site bond test indicates whether substrate preparation is adequate before system application.
- Seamless repairability — achieves a chemical bond with itself and with other Res-Tek system components.

RT-05 LIQUID PROPERTIES

Physical Form: Low viscosity liquid

Density: 7.84 lbs / gallon

DOT Classification: Flammable Liquid, Class 3, UN 1866

Shelf Life: 1 year (minimum)

PHYSICAL PROPERTIES (SYSTEM)

Compressive Strength (psi):

ASTM C39 7,800

Coefficient of Thermal Expansion

(in./in. / degrees F) $\times 10^{-6}$ ASTM C531 18

Compressive Modulus of Elasticity (psi):

ASTM C469 800,000

Tensile Strength (psi):

ASTM D638 1,200

Flexural Strength (psi):

ASTM D790 2,800

Water Absorption (% / 24 hrs.):

ASTM D570 .02

SURFACE PREPARATION

The Res-Tek RT-05 polymer concrete system requires a clean, dry substrate free of oils, grease, wax, solvents, curing membranes, and any other contaminants. Concrete should be mechanically prepared to open surface and to remove fines, laitance, and unsound concrete. Surface must be primed using Res-Tek RT-710 Primer.

THE BOND TEST

A bond test should be performed prior to the application of the RT-05 system in order to determine the adequacy of the surface preparation performed and the subsequent bond achieved. The exact procedure for performing the bond test can be found in the sheet titled "The Bond Test," provided by Res-Tek Inc.

RES-TEK INC.

110 Riverside Drive
Cartersville, Georgia 30120

P. 888.ResTek-1 (888.737.8351)

F. 770.427.4037



RT-05

PC Powder & Liquid

APPLICATION INFORMATION

Typical Application Rate (unextended):

25 sq. ft. / batch @ 1/8" or 0.26 cu. ft.

Pot Life @ 68 Degrees F:

15-20 minutes

Film Thickness:

1/8" - 1/2"

Cure Time @ 68 Degrees F:

60 minutes

Application Temperature:

20 degrees F to 100 degrees F

Re-Coat Time:

60 minutes

MIXING INSTRUCTIONS

Use clean, dry, mixing buckets only. For neat mortar; measure 56 volume ounces of RT05 Liquid into mixing bucket. Using a heavy duty 1/2" drill equipped with a Spiral Mixing Blade (available from Res-Tek), add one full 31 lbs. bag while under agitation. Mix until well blended, approx 30 – 60 seconds. Place immediately and finish with a flat steel trowel. This product must be extended with washed and dried pea gravel for application depths greater than 1/4". Refer to the Res-Tek RT05 Polymer concrete Extension Chart for extension rates and product yield. Up to an additional 8 volume ounces of RT05 Liquid (per batch) is required when extending with pea gravel. Cured RT05 PC must be re-primed prior to coating with additional Res-Tek MMA based flooring products.

STANDARD PACKAGING

Res-Tek RT-05 polymer concrete is a 2-component system. The liquid portion (RT-05 Liquid) is packaged in 38 lb pails and 400 lb drums.* The powder portion (RT-05 Powder) is packaged in 31 lb bags. RT-05 Powder

contains the benzoyl peroxide hardener powder necessary to catalyze the system. There is no need to add additional BPO (see Application Information section).

STORAGE CONDITIONS

Store material in a cool and dry place out of direct sunlight. Do not store near open flame or ignition source. Read and understand all product labels and MSD sheets prior to use.

CAUTION

Res-Tek RT-05 polymer concrete liquid is a flammable liquid in its uncured state (as provided). All sources of ignition should be removed from the work area before handling this product. No smoking, open flames, or sparks should be permitted in and around the work area. Workers should wear protective clothing including goggles and impermeable gloves. If allowable exposure limits are exceeded, organic vapor respirators should be worn. All on-site personnel should become familiar with the MSD Sheet and hazard section of application binder in order to increase hazards awareness.

WARRANTY

Res-Tek Inc. warrants that materials shipped to buyers are free of any defects in material or workmanship according to Res-Tek's published data if used in accordance with Res-Tek's specified application procedure. Res-Tek Inc. shall not be responsible for any claim resulting from failure to utilize product in the manner in which it was intended, and in accordance with Res-Tek's application guidelines. Res-Tek Inc. has no responsibility for application and processing of products.

- This product is sold by weight, not by volume. Product properties require that containers provided are not completely filled. See price sheet for actual container weight and volume.

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