

RTE-100 Flex

Semi-Rigid Epoxy LV Membrane, Static Joint Sealant & Crack Filler

DESCRIPTION

RTE-100 Flex is a two-component, low viscosity, 100% solids, semi-rigid epoxy membrane, and joint sealant and cracks filler. It features a combination of excellent adhesion and elongation not available in general-purpose epoxy. It is formulated to provide the armoring of concrete joint edges and minimizing the deterioration of concrete joint/crack edge to impact. It is available in standard cure and fast cure. It is used for embedding detector wire loops for a traffic signal, electric gates, and robotics. 8 For armor joint and crack edges use RTE-100 Flex instead of elastomeric sealants that meet ASTM C920 Standard Specification for Elastomeric Joint Sealants which do not armor the concrete joint or crack edges. It is used on floors, joints, and cracks subjected to heavy foot traffic, forklift traffic, and chemical attack, specifically food acids. Also, it is used as an epoxy membrane for waterproofing and crack dampening under epoxy coating and flooring systems. It is VOC Compliant in all states and provinces in North America. • "S" – Standard Cure Hardener is designed for temperatures ranging from 50°F to 80°F (10°C to 27°C). • "F" – Fast Cure Hardener is designed for temperatures ranging from 40°F o 60°F (4°C to 16°C).

TYPICAL USES

- Membrane: Crack Bridging, Crack Damping, Crack Isolation, Fluid Proofing, Seismic Crack Control, and Waterproofing
- Static Control Joint and Non-Moving Crack Filler
- Embedded detector wire loop for traffic signals, electric gates and Robotics
- Mechanical Equipment Room Membrane
- Primer for Properly Prepared Exterior Grade Plywood

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BENEFITS

- Complies with USDA, FDA, Food Safety Modernization Act. See Resintek Systems Technical Bulletin: 3 Food and Beverage Compliance.
- Slip Resistance (ADA) See Resintek Systems Technical Bulletin: 4 Coefficient of Friction.
- LEED® and Green Seal® requirements. See Resintek Systems Technical Bulletin: 5 LEED and Green Seal® requirements. See Resintek Systems Technical Bulletin: 5 LEED and Green Seal® requirements.
- Seal Information.
- 100% Solids, Zero VOC and EPA Compliant, and low odor during installation. Cures to an inert finish. See Resintek Systems Technical Bulletin: 2 VOC Compliance.
- Strong and Tough Floor.
- Strong Chemical and Abrasion Resistance
- Designed for new floors and for resurfacing old floors

LIMITATIONS

- This product is best suited for applications in temperatures between 60°F to 90°F (16°C to 32°C).
- Scratches in certain colors may appear white, such as blue pigmented products.
- Higher temperatures will result in shortened working times and faster drying time.
- Color may vary due to batch-to-batch variation, always “box” different batches to avoid it.
- Do not use as a primer when concrete slab exceeds 3 lbs. or 80% RH

CONCRETE

Concrete must be structurally sound and free of curing agents, coatings, sealers, densifiers, and other bond breakers.

New Concrete:

- Place concrete per ACI 302.2R Guide for Concrete
- Slabs that Receive Moisture-Sensitive Floor Materials
- Water Cement Ratio 0.4 to 0.5, and an approximate 4,000 psi (28 MPa) strength level.
- Requiring a positive side moisture barrier in direct contact with the concrete meeting ASTM E1745 Standard Specification for Plastic Water Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs. The moisture barrier needs to be
- Selection, Design, Installation of Water Vapor Retarders Used in Contact the earth or Granular Fill

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Under Concrete Slabs, Class A 15 mils (0.38 mm). Existing Concrete:

- If field tests or laboratory analysis reveals inferior concrete flooring slabs containing contaminants from previously applied unreacted silicate materials that will interfere with the bond, Resintek Systems Primer. See Resintek Systems Technical Bulletin: 20 Selecting a Primer.
- Contaminants include, but are not limited to organic, hydrocarbon materials, calcium chlorides, and aluminum stearates.
- Concrete flooring slab can lose their structural strength over time, caused by conditions beyond the control of the flooring manufacturer or the installation contractor.
- If the concrete substrate deteriorates sufficiently, it will no longer support the bond of the remediation floor system.
- Such conditions are detailed in ACI 201.2R "Guide to Durable Concrete" published by the American Concrete Institute. See Crown Polymers Technical Bulletin: 1 Concrete Surface Preparation.

COVERAGE RATES

Membrane (Crack Bridging, Crack Damping, Crack Isolation, Fluid Proofing, Seismic Crack Control, and Waterproofing)

- 1 st Coat 80 sq. ft. per gallon (7.4 sq. m. per 3.9 lts.). WFT 20 mils (5.1 mm)
- Optional Reinforcement Fiber Glass or Scrim Cloth for Dimensional Stability
- 2nd Coat 80 sq. ft. per gallon (7.4 sq. m. per 3.9 lts.). WFT 20 mils (5.1 mm)
- Optional Broadcast Aggregate into the 2nd Coat only, use 30 mesh, uniform in size, washed, dried, and bagged, if recoat window is longer than 24 hours.

Non-Moving Control Joint or Non-Moving Crack Sealant

- Installation coverage will vary with the application method, width, and depth of control joint to be filled. There are 231 cubic inches per gallon of Resintek Systems RTE-100 Flex. (Theoretical coverage does not address wastage.)
- Optional Reinforcement Fiber Glass or Scrim Cloth for Dimensional Stability Recommended when Coating or Flooring System is intended to cover Control Joints or Cracks.

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APPROXIMATE YIELD per GALLON (No Wastage)						
Width Per Inch	Depth Per Inch	Linear Feet Per Gal		Width Per Inch	Depth Per Inch	Linear Feet Per Gal
1/8	1/8	1200		1/2	1/8	300
1/8	1/4	600		1/2	1/4	150
1/8	1/2	300		1/2	1/2	75
1/8	3/4	200		1/2	3/4	50
1/8	1	150		1/2	1	37
1/4	1/8	600		1	1/8	150
1/4	1/4	300		1	1/4	75
1/4	1/2	150		1	1/2	37
1/4	3/4	100		1	3/4	25
1/4	1	75		1	1	19

Physical Properties at 77°F (25°C) Unless Otherwise Stated	
VOC (Volatile Organic Compounds) ASTM D3960	<5 gr./lt.
Viscosity, Mixed Epoxy and Hardener	1,250 cps
8502 Standard Pot Life, 1 gal (3.79 lts.) Mass (Pot Life is reduced when the Mass and/or Temperature is increased.	30 Minutes

8502 Fast Pot Life, 1 gal (3.79 lts.) Mass (Pot Life is reduced when the Mass and/or Temperature is increased.	20 Minutes
Mix Ratio, by Volume	2:1
Minimum Application Temperature	40°F (4.4°C)
8502 Standard Dry to Touch 50°F to 90°F (10°C to 32°C)	4 to 6 Hours
8502 Standard Recoat Time 50°F to 90°F (10°C to 32°C)	12 to 24 Hours
8502 Standard Little Traffic 50°F to 90°F (10°C to 32°C)	12 Hours Minimum
8502 Standard Full Cure 50°F to 90°F (10°C to 32°C)	4 to 14 Days
Shelf Life (Shipping and Storage) 40°F to 100°F (4.4°C to 38°C)	1 Year
Packaging 1.5, 3, and 15 gal kits (5.7, 11.4, and 56.8 lts. kits)	

Mechanical Properties at 77°F (25°C) Unless Otherwise Stated	
Surface Preparation ICRI Guideline No. 310.2R (CSP 2 to CSP 4), Depending on System being Installed and Concrete Condition.	
Compressive Strength, ASTM D695	2,500 psi (17.2 mpa)
Tensile Strength, ASTM D638	1,000 psi (6.9 mpa)
Tensile Elongation, ASTM D638	60%
Adhesion, ASTM D7234	>300 psi (2.1 mpa)
Hardness (Shore D) ASTM D2240	55 - 60
Microbial (fungi) Resistance, ASTM G21 without an anti-microbial agent)	Pass < 1
Water Absorption Mixed Resin and Hardener, ASTM D570	0.1%
Moisture Vapor Emission Rate, ASTM F1869*	3 lbs.
Moisture Relative Humidity, ASTM F2170*	80% rh
*If moisture or relative humidity exceeds the test limits consult a Crown Polymers representative and refer to Crown Polymers Technical Bulletin 6 Moisture Mitigation Negative Side Moisture Barrier.	
Note: Although testing is critical, it is not guaranteed against future Problems. This is especially true if there is not a positive side vapor barrier installed per ACI 302.2R and ASTM F1754. Concrete must be sound and durable per ACI 201.2R and be free of bond breaking properties and/or concrete contamination from oil, chemical spills, densifiers, excessive salts and other bond breakers.	

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OPTIONAL ANTIMICROBIAL

The antimicrobial additive is a non-heavy metal biocide that can be added during the manufacturing process. The antimicrobial agent can be added to the topcoat only for an economical application or it can be added to each step of the application, primer, body coat, and topcoat, which is recommended for abusive environments. See Resintek Systems Technical Bulletin: 11 Understanding the Optional Antimicrobial Additive.

MIXING

For ease of mixing and placement, the temperature of the "A" and "B" components should be between 70°F to 80°F (20°C to 26°C). Pre-mix the "A" and "B" components to ensure all raw material and pigments are dispersed uniformly. See Resintek Systems Technical Bulletin: 10 Mixing Guidelines.

APPLICATION

After mixing all contents as instructed, immediately pour all liquid material onto the properly prepared concrete substrate, or next epoxy lift in ribbons and squeegee the material out evenly. Back-roll and cross rolling of material are critical for receiving coat, lock coat, grout coat, topcoat, and finish coat. Check for desired wet film thickness with a WFT Gauge. If broadcasting aggregate, broadcast into the wet material. Place trowel mortar mix within installation sequence. Place all steps per Resintek Systems Installation Guidelines. Technical Bulletin: 4 Coefficient of Friction.

SKID-RESISTANCE

Skid-Resistance – Field (in situ) Wet Dynamic Coefficient of Friction (DCOF), ANSI A326.3. See Resintek Systems Technical Bulletin: 4 Coefficient of Friction.

SHIPPING and STORAGE

Ship and store material between 40°F to 90°F (4°C to 32°C). Store in a dry environment and out of direct sunlight.

SHELF LIFE

Shelf life is 1 year from the date of manufacturer, provide the containers are unopened.

CLEAN-UP

Clean-up mixing station, tools, and equipment as required. Use acetone, a VOC exempt solvent, for cleaning up. Observe all legal, and health, and safety precautions when handling or storing solvents and materials, particularly in confined spaces. Make sure the working areas are well ventilated at all times during placement and curing time.

DISPOSAL

Dispose of empty packaging and other waste in accordance with federal, state, provinces and local regulations.

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MAINTENANCE

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. To prolong life of the flooring system, a daily maintenance program is highly recommended to ensure the floor is safe for its intended purposes. See Resintek Systems Technical Bulletin: 8 Care and Maintenance.

TECHNICAL SUPPORT

For questions, contact a Resintek Systems Representative. Additional Support Documents are available from Resintek Systems, including brochures, application guidelines, videos and more. Visit resinteksystems.com or contact Resintek Systems for additional resources.

LIMITED WARRANTY

Resintek Systems warrants its products to be free of manufacturing defects and meets all Resintek Systems current published physical properties. Resintek Systems' sole responsibility shall be to replace the portion of any product proved to be defective. There are no other warranties by Resintek Systems of any nature whatsoever expressed or implied, including any warranty of merchant- ability or fitness for a particular purpose in connection with this product. Resintek Systems shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Resintek Systems shall not be responsible for the use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee pertaining to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator will be issued. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Resintek Systems reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator

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