

DT 454

GENERAL PURPOSE EPOXY

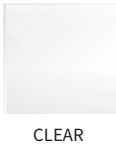
PRODUCT OVERVIEW

DT 454 is a two-component, 100% solids, general-purpose industrial epoxy designed for versatility and reliable performance in a wide range of applications. With its moderate dry time and moderate UV resistance, DT 454 provides a practical balance between workability and durability, allowing for controlled application and consistent results. This self-priming epoxy offers excellent adhesion, impact resistance, and chemical resistance, making it ideal for use as a basecoat, buildcoat in residential, commercial, or industrial flooring systems. Its moderate UV resistance also makes it suitable as a topcoat in areas with low UV exposure. DT 454 delivers a smooth, high-quality finish and can be applied clear or pigmented in the field using E-Poly universal colorants.

KEY FEATURES

- Low VOC Formulation
- Low Odor
- High-Build Thickness
- UV Resistance
- Superior Chemical Resistance
- Good Abrasion Resistance
- Enhanced Durability
- Extended Working Time
- Strong Adhesion
- Broadcast Compatible

COLOR OPTIONS



CLEAR

APPLICATION CONSIDERATIONS

- Higher ambient, product, and substrate temps will decrease working time and dry time
- Slab on grade requires moisture barrier
- May amber with continuous UV exposure
- Will not bridge substrate cracking

PHYSICAL CHARACTERISTICS

SOLIDS CONTENT	100%
VOLUMETRIC MIX RATIO	2A:1B
VISCOSITY	2,000 cps
POT LIFE 1.5 GAL MASS	20-30 Minutes @ 75°F
WORKING TIME	30-35 Minutes @ 75°F
TACK FREE	6-7 Hours @ 75°F
RECOAT WINDOW	6-24 Hours @ 75°F
LIGHT FOOT TRAFFIC	12 Hours @ 75°F
FULL CURE	5 Days
APPLICATION TEMPERATURE	45°F - 90°F RH <85%
COVERAGE RATE	80-160 ft ² /gal @ 10-20 Mils WFT
SHELF LIFE UNOPENED	1 Year
PACKAGING	3 Gallon Kit 15 Gallon Kit

TECHNICAL PROPERTIES

HARDNESS	ASTM D2240	Shore D 82
COMPRESSIVE STRENGTH	ASTM D695	12,450 psi
TENSILE STRENGTH	ASTM D638	9,400 psi
FLEXURAL STRENGTH	ASTM D790	10,300 psi
GLOSS INDEX @ 60°	ASTM D112	90
ADHESION	ASTM D7234	450 psi Concrete Failure
ABRASION RESISTANCE CS-17 WHEEL, 1000G LOAD, 500 CYCLES	ASTM D4060	34 mg loss
IMPACT RESISTANCE DIRECT & REVERSE 50 IN/LBS	ASTM D5420	PASS

CHEMICAL RESISTANCE

Refer to Floorguard Products Chemical Resistance Chart.

REQUIREMENTS

- The substrate should have a compressive strength of at least 3,500 psi
- The substrate should have a Moisture Vapor Emission Rate (MVER) of less than 3 lbs per ASTM F1869 and a Relative Humidity (RH) below 80% per ASTM F2170. When using a Tramex concrete moisture meter, the moisture content should be under 4%
- The substrate should have a pH level in the range of 6 to 9.
- Concrete must be structurally sound and free of all contaminants and bond breakers.
- Concrete should be mechanically prepared and profiled to achieve a Concrete Surface Profile (CSP) between levels 2 and 4, in accordance with ICRI 310.2R
- Mask all perimeter areas to protect surfaces at coating terminations. Saw-cut and key all termination points as required.
- Ensure all depressions, divots, and cracks are properly profiled, cleaned of dust and contaminants, and repaired to prevent defects from showing through the coating.
- Preserve all dynamic joints, while static joints can be filled. When necessary, use dynamic joints as starting and ending points during the application process.
- Ambient and substrate temps should be above 45°F and a minimum of 5°F above Dew Point.
- Product temps should be between 70-80°F.
- Ambient relative humidity should not exceed 80% during coating application.

PRECAUTIONS

- Refer to Safety Data Sheets (SDS) for safety precautions.
- Safety precautions must be followed during storage, handling, and use.
- Personal Protective Equipment (PPE) shall be worn at all times of the application process including but not limited to long sleeve shirts, safety glasses, nitrile gloves and properly fitted NIOSH respirators.
- All sources of ignition must be turned off, and the area should be properly and adequately ventilated during both the application and curing processes.
- The mixing area should be located on or near the project site and securely covered with plastic, cardboard, or a tarp to protect against drips and spills.
- Stage all materials, tools, and cleaning supplies in a shaded area—out of direct sunlight—within the mixing area before beginning the application process.
- Clean the mixing station and application tools after use with a VOC-exempt solvent. Always follow all legal, health, and safety guidelines when handling or storing solvents and materials, especially when working in confined spaces.
- Dispose of empty packaging and other waste in accordance with all applicable federal, state, provincial, and local regulations.

MIXING PROCEDURE

1. Pre condition product to temperature between 70°-80°F for best results
2. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 30 seconds until thoroughly homogeneous
 - If field pigmenting clear using E-Poly Universal Colorants, add 8 oz pigment per gal (dark colors) or 10-12 oz pigment per gal (light colors) to A-Component and mix until color is uniform.
3. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
4. Transfer A-component and B-component at a mix rate of 2A:1B by volume and mix for 2-3 minutes being sure to scrape sides of the bucket ensuring both components are thoroughly blended
 - Do not mix at high RPMs or air entrapment may occur
 - Do not pull mixing paddle in and out of the mix during process or air entrapment may occur

COVERAGE RATES & WORKING TIMES

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|---|--|
| <ul style="list-style-type: none">• Basecoat: 160 Ft² / Gal @ 10 Mils WFT• Buildcoat: 80 Ft² / Gal @ 20 Mils WFT• Topcoat: 133 Ft² / Gal @ 12 Mils WFT | <ul style="list-style-type: none">• 40-50 Minute Working Time @ 57°F• 30-35 Minute Working Time @ 75°F• 20-25 Minute Working Time @ 93°F |
|---|--|
- Surface porosity, temperatures, and application method will cause coverage rate to vary.
 - Ambient temps & humidity, product and surface temps, airflow and mix time affect overall working times

APPLICATION PROCEDURE

1. Cut-in edges using a chip brush. Do not allow wet edges to stand more than 5 minutes ahead of application of main body of floor.
 - Epoxy sets faster in mass; Mixed material should not remain in bucket
 - Be mindful of environmental variables and affects on estimated working time
 2. Pour mixed material across the surface. Use 8-12 or 15-20 mil notched squeegee to gauge material across surface achieving desired thickness.
 - Do not flip bucket upside down and allow to sit on surface
 - Ensure you maintain a wet edge throughout application process
 - Follow recommended coverage rates and wet film thickness
 3. Pre-wet 18" x 3/8" nap roller and back roll the surface wall to wall with 50% overlap. Back roll should be perpendicular to your first pass
 - Do not overwork material
 - Ensure back roll is always either wall to wall or joint to joint for a consistent finish
 4. Allow coating to dry : 12-16 Hours @ 57°F
6-8 Hours @ 75°F
3-5 Hours @ 93°F
 - Do not force dry
 - Recoat: 6-24 Hours @ 75°F
- If coating has no broadcast aggregate, surface will need to be abraded using 80-100 sanding screen prior to recoat after the 24 hour window
 - Light Traffic: 12 Hours @ 75°F
 - Heavy Traffic: 24 Hours @ 75°F
 - Equipment Traffic: 72 Hours @ 75°F
 - Lower temps will further delay traffic time

MAINTENANCE

Inspect the installed floor by spot-cleaning and repairing any damaged or cracked areas as needed. To extend the life of the flooring system, implementing a daily maintenance program is strongly recommended to help ensure the floor remains safe for its intended use.

TECHNICAL SUPPORT

For questions, please contact a Floorguard Products representative. Additional support materials are available from Floorguard Products. Visit floorguardproducts.com or reach out to us directly for further resources.

DISCLAIMER

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