

SYSTEM BULLETIN



EPO-FLEX® Vehicular Traffic Topping

Product Description

General Polymers EPO-FLEX Vehicular Traffic Deck System combines EPO-FLEX crack isolation with hard aggregate to provide a tough traffic bearing system. Flexibility is achieved without the use of plasticizers or other additives which can separate or migrate as the system ages. This means that the product remains flexible and continues to function for many years. Fiberglass scrim may be incorporated into the system to add tensile strength.

The use of a hard aggregate provides abrasion resistance and skid inhibition properties. The aliphatic topcoat is specified to provide protection against water, oils, chemicals and ultraviolet light.

Advantages

- Bridges hairline cracks, thereby aiding in suppression of cracks reflecting through the system due to substrate movement
- -0- VOC (Volatile Organic Content)
- Abrasion resistant
- Color options
- Slip resistant
- Waterproof
- Chemical and stain resistant
- Fiberglass scrim optional for maximum tensile strength
- Thermal shock resistant

Uses

- Vehicular Traffic Deck

System Specification

EPO-FLEX Vehicular Traffic Topping System consists of 3579 Standard Primer / Binder as primer, one coat of 3552 EPO-FLEX Flexible Epoxy as waterproofing membrane and one coat 3552 EPO-FLEX Flexible Epoxy as wearcourse with Dry Silica 30 mesh or other hard aggregate and 4628 1K Polyurethane Enamel as seal coat.

Typical Physical Properties of 3552

Solids, by volume	100%
VOC (Volatile Organic Content)	-0-
Hardness, Shore D ASTM D 2240	23
Tensile Strength ASTM D 412	1200 psi
Elongation ASTM D 412	145%
Adhesion ACI 503R	350 psi 100% concrete failure
Flammability	Self-Extinguishing over concrete
Thermal Cycling ASTM C 884 (24 hours, -21°C to 25°C)	No Cracking

ASTM C = Mortar system
ASTM D = Resin only

Installation

General Polymers materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the EPO-FLEX Vehicular Traffic Topping System. Contact the Technical Service Department for assistance prior to application.

Surface Preparation - General

General Polymers systems can be applied to a variety of substrates, if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Technical Service Department prior to starting the project.

Surface Preparation - Concrete

Concrete surfaces shall be abrasive blasted to remove all surface contaminants and laitance. The prepared concrete shall have a surface profile equal to 40-60 grit sandpaper.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Protrusions shall be ground smooth while voids shall be filled with a system compatible filler. For recommendations, consult the Technical Service Department.

Temperature

Throughout the application process, substrate temperature should be 60°F - 90°F. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrate should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible.

Application Information

Material	Mix Ratio	Theoretical Coverage Per Coat Concrete	Packaging
Primer 3579	2:1	250 sq. ft. / gal	3 or 15 gals
Membrane 3552	1:1	80 sq. ft. / gal	2 or 10 gals
Wearcourse 3552	1:1	80 sq. ft. / gal	2 or 10 gals
Dry Silica 30 mesh or Other Hard Aggregate		To Excess	100 lbs
Seal Coat 4628	Single Component	250-400 sq. ft. / gal	5 gals

Primer

Mixing and Application

1. Premix 3579A (resin) and 3579B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to introduce air into the material.
2. Add 2 parts 3579A (resin) to 1 part 3579B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
3. 3579 may be applied via spray, roller or brush. Apply 5-8 mils, evenly, with no puddles. Coverage will vary depending upon porosity of the substrate and surface texture.
4. Wait until primer is tacky (minimum 1 hour), before applying the membrane. If primer is not going to be topped within open time, broadcast silica sand into resin lightly but uniformly and allow to cure overnight.

Membrane

Mixing and Application - If priming is done to reduce outgassing , allow to cure overnight before topping

1. Premix 3552A (resin) and 3552B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to whip air into the material.
2. Add 1 part 3552A (resin) to 1 part 3552B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.
3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched squeegee to yield 20 mils WFT. Readings must be taken continuously during application with a wet mil gauge to verify material is being applied at the proper thickness. Allow to cure overnight at 73°F surface temperature. Material cures slower at lower temperatures.
4. If optional fiberglass scrim is used, the scrim should be laid into the wet surface of the 3552 EPO-FLEX. **DO NOT** push the scrim to the substrate. The pattern of the scrim should be visible.

Wearcourse

Mixing and Application

1. Premix 3552A (resin) and 3552B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to whip air into the material.
2. Add 1 part 3552A (resin) to 1 part 3552B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.
3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched squeegee to yield 20 mils WFT. Readings must be taken continuously during application with a wet mil gauge to verify material is being applied at the proper thickness. Material cures slower at lower temperatures.
4. Broadcast Dry Silica 30 mesh or other Hard Aggregate to excess into wet material so no wet material is visible. Aggregate should be broadcast within one (1) hour of liquid application to ensure they are properly seated.
5. Allow to cure (Cure times vary depending on environmental conditions), sweep off excess aggregate with a clean, stiff bristled broom. Clean aggregate can be saved for future use. All imperfections such as high spots should be smoothed before the application of the seal coat.

NOTE: The decks finished appearance depends on the manner in which the aggregate has been applied. In grass seed like fashion, allow the aggregate to fall after being thrown upward and out. **DO NOT THROW DOWNWARD AT A SHARP ANGLE USING FORCE.**

Seal Coat

Mixing and Application

1. Premix 4628 using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to introduce air into the material.

2. Apply 4628 using a squeegee and backroll with 1/4" nap roller at a spread rate of 250-400 sq. ft. per gallon, evenly, with no puddles making sure of uniform coverage. For added chemical resistance, add 2 oz 4628X per gallon of 4628.

3. Allow to cure 24 hours minimum before opening to traffic.

Cleanup

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

Safety

MSDS (Material Safety Data Sheets) must be read and understood by personnel responsible for supervision and installation of General Polymers materials. In particular, PPI (Personal Protection Index) data should be consulted to help insure safe handling. All applicable federal, state, local and particular plant safety guidelines must be followed during the handling and installation and cure of these materials.

Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

Material Storage

Store materials in a temperature controlled environment (50°F - 90°F) and out of direct sunlight.

Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. One year shelf life is expected for products stored between 50°F - 90°F.

Maintenance

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Technical Service Department.

Shipping

- Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.

- Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

Warranty

The sale of General Polymers Brand products is governed by the Standard Terms and Conditions of Sale. Sherwin-Williams has no knowledge or control concerning buyer's use for the product nor over the quality of the concrete or substrate to which they are applied. Sherwin-Williams assumes no responsibility for any loss or damage resulting from the handling or use of the products by the buyers. Sherwin-Williams makes the following **LIMITED WARRANTY** that its products have been supplied free from manufacturing defects, and will conform to Sherwin-Williams manufacturing standards. Technical data furnished is true and accurate to the best of our knowledge; however, no guarantee of accuracy is given or implied.

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