

# SS Aliphatic 100% Epoxy



## Technical Data Sheet (06/21/12)

### TWO COMPONENT CYCLO-ALIPHATIC AMINE EPOXY COATING FOR CONCRETE

#### PRODUCT DESCRIPTION

SS Aliphatic 100% Epoxy is a 100% solids, two component, cyclo-aliphatic amine epoxy system with excellent durability including abrasion resistance, chemical resistance and hot tire resistance. SS Aliphatic 100% Epoxy is a user friendly high performance interior concrete flooring system. May be tinted with the standard SS Color Pacs.

#### BENEFITS AND FEATURES

- Excellent long term wear capabilities.
- Excellent chemical resistance.
- Excellent resistance to stain.

#### RECOMMENDED APPLICATIONS

SS Aliphatic 100% Epoxy is designed for a variety of seamless high build concrete flooring applications. It is an excellent coating for auto service centers, warehouses, computer rooms, laboratories, aircraft hangars, cafeterias, and other areas where high performance, abrasion resistance and chemical resistance are required. The SS Aliphatic 100% Epoxy used as the primer and the SS Aliphatic 60% Urethane combination as the top coat is a very high quality and affordable commercial/industrial floor coating system. This combination is also an excellent coating choice for interior decorative exposed to high foot traffic conditions.

#### TECHNICAL INFORMATION

Abrasion Resistance.....	28.1 mg loss
(Tabler Index, ASTM 4060-81, CS-17 Abrasion Wheel, 1000 gram load)	
Gloss 60 .....	90-95
Flexibility (1/8" Mandrel) .....	Pass
Hardness—Shore D.....	82
Compressive Strength @ Yield (psi).....	11,200
Tensile Strength (ASTM D638) .....	6200
Elongation .....	7%
Solids % Weight (Federal Spec. TTP-141B) .....	100%
Density lbs/Ga. [Federal Spec. TTP-141B] .....	9.32
VOC .....	< 5 grams per liter
Mix Ratio (a/b volume).....	2 to 1
19.33# part A (2.0 gallon approximate) to 8.66# part B (1 gallon approximate)	
Viscosity .....	400–600 cps
Pot Life.....	20–30 minutes
Dry Time—Set to Touch (50% R.H. @ 72°F) .....	6–8 hours
Dry Time—Recoat (50% R.H. @ 72°F) .....	10–16 hours
Dry Time—Light Traffic (50% R.H. @ 72°F) .....	14–18 hours
Dry Time—Full Cure (heavy traffic, 50% R.H. @ 72°F).....	2–7 days
Application temperature.....	55-90°F

#### CHEMICAL RESISTANCE

Butanol.....	C	10% Sulfuric Acid .....	C
MEK.....	A	Gasoline .....	C
Xylene.....	C	70% Sulfuric Acid .....	A
10% Sodium Hydroxide .....	E	Skydrol B-4.....	B
1,1,1 trichloroethane.....	B	5% Acetic Acid.....	B
50% Sodium Hydroxide .....	D	Ethylene Alcohol .....	C
Methanol .....	A	10% HCl [aq].....	C

*Rating Key: A—not recommended, B—2 hour term splash spill, C—8 hour term splash spill, D—72 hour immersion, E—long term immersion.*

- A chemical exposure test should always be performed prior to application resistance to ensure satisfactory resistance.

#### APPROXIMATE COVERAGE RATES

16-18 mil dft ..... 90–100 square feet per gallon

*Coverage rates vary depending upon surface porosity and texture, and application method. Follow directions for best results.*

#### INSTRUCTION FOR USE

**SURFACE PREPARATION:** A fine to medium shot blasting or the use of a diamond grinding machine to obtain a surface profile of a CSP-3 to a CSP-5 is suggested for ultimate adhesion. A test should be made to determine that the concrete is dry; this can be done by placing a 4 x 4 plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate should be ready to coat. More advanced moisture testing kits should be used on floors with suspected moisture problems. SS Aliphatic 100% Epoxy is designed to be applied only to primed surfaces within the recommended recoat window of the primer or previously sealed surfaces that have sufficient adhesion to the substrate. Apply coating to a clean surface that is completely dry and free of oil, dirt, grime, wax, detergent or any incompatible paint or coating. If applying to an existing fully cured and fully adhered coating, the surface must be cleaned and sanded with 80—100 grit sandpaper. If multiple coats of SS Aliphatic 100% Epoxy are required apply the second coat as close as possible to the suggested recoat time (see technical information section on this data sheet). Do not exceed 24 hours to recoat or a light sanding may be needed for adequate adhesion between coats.

**PRIMING:** Prime the surface with SS Water Based 40 Epoxy. Refer to the SS Water Based 40 Epoxy technical data sheets for application information.

**MIXING:** Pour a full pre-packaged kit of 2 parts of Part A to 1 part of Part B together and mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and homogenous. Avoid whipping air into the coating. Improper mixing may result in product failure.

**APPLICATION:** Apply the mixed material with a brush, roller, trowel, notched squeegee or gauge rake and then backroll evenly to maintain the desired thickness within the usable pot life time frame, as well as the recommended temperature and relative humidity guidelines listed in the Technical Information section. If concrete conditions or aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. If the material becomes thick while applying and sticking to the application tools, stop applying and discard the mixed material. At this point it has reached the end of the usable pot life. While applying keep a wet edge to prevent streaking. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. Do not allow to Puddle! If re-coating after 24 hours a light sanding using a fine sanding screen may be needed to ensure adequate inner coat adhesion..

*Please note: Applying SS Aliphatic 100% Epoxy outside of the suggested parameters may result in job failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc.*

#### CLEAN UP

Use MEK. Dispose of containers in accordance with local and federal regulations.

## PRODUCT REMOVAL

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Dried, cured epoxy may be removed by chemical means including sanding, shot blasting, etc.

## SHELF LIFE

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SS Aliphatic 100% Epoxy has a shelf life up to one year (12 months) in it's original, sealed, unopened container.

## PRODUCT STORAGE

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Store product in an area so as to bring the material to room temperature within the recommended application temperature range before applying. Long term storage should be between 60 and 90°F.

## PACKAGING

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SS Aliphatic 100% Epoxy is packaged in 3 gallon and 15 gallon kits.

## PRECAUTIONS AND LIMITATIONS

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- All new concrete must be cured for at least 28 days prior to application.
- Coverage rates depend upon many conditions including application method, surface porosity, applicator, etc.

- Be aware that this product may be slippery when wet. Anti Slip additives may be needed to reduce surface slip hazards.
- SS Aliphatic 100% Epoxy may darken the surface of many new and existing concrete substrates. Test prior to use.
- Physical properties listed on this technical data sheet are typical values not specifications.
- If applying over an existing coating, proper adhesion and compatibility tests are essential. In this application the substrate preparation, application, performance and all other liabilities are strictly the end users responsibility. SS Specialties offers no guaranty, warranty or other claims to the success or results of the job in this circumstance.

## SPECIAL NOTES

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Please consult Material Safety Data Sheet (MSDS) and read Warranty information prior to use. This information can be requested by contacting customer service at 866-906-2006.

