

# SS Aliphatic 60% Urethane



## Technical Data Sheet (10/17/14)

### TWO COMPONENT ALIPHATIC POLYURETHANE COATING FOR CONCRETE

#### PRODUCT DESCRIPTION

SS Aliphatic 60% Urethane is a two component aliphatic polyurethane coating with excellent abrasion resistance, chemical resistance, hot tire resistance and UV Stability. SS Aliphatic 60% Urethane is designed as a high performance topcoat for concrete flooring systems, especially when combined with SS Aliphatic 100% Epoxy. Tint with SS Specialties Color Dispersion, if desired.

#### BENEFITS AND FEATURES

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

#### RECOMMENDED APPLICATIONS

SS Aliphatic 60% Urethane has been designed as a high performance topcoat for various concrete and seamless floor applications. It is an excellent coating for auto service centers, warehouses, computer rooms, laboratories, aircraft hangars, cafeterias, exterior tanks and other areas where high performance, abrasion resistance and chemical resistance are required.

#### TECHNICAL INFORMATION

Abrasion Resistance.....	35 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.....	62
Water Resistance .....	Excellent
Solids % Weight (Federal Spec. TTP-141B) .....	60%
Density lbs/Ga. (Federal Spec. TTP-141B) .....	8.49
VOC .....	< 400 grams per liter
Mix Ratio (a/b volume).....	2 to 1
16.73# part A (2.0 gallon approximate) to 8.75# part B (1 gallon approximate)	
Viscosity .....	400–600 cps
Pot Life .....	1–1.5 hours
Dry Time—Set to Touch (50% R.H. @ 72°F) .....	4–6 hours
Dry Time—Recoat (50% R.H. @ 72°F) .....	10–12 hours
Dry Time—Light Traffic (50% R.H. @ 72°F) .....	24 hours
Dry Time—Full Cure (heavy traffic, 50% R.H. @ 72°F).....	3–5 days
Application temperature.....	45-90°F

#### CHEMICAL RESISTANCE

Urine .....	No Effect	25% Sulfuric Acid .....	No Effect
MEK.....	Film Softened	Gasoline .....	No Effect
Blood .....	No Effect	25% Acetic Acid .....	No Effect
10% Sodium Hydroxide..	No Effect	Skydrol B-4.....	No Effect
Brake Fluid .....	No Effect	20% Nitric Acid.....	No Effect
50% Sodium Hydroxide..	No Effect	Ethylene Alcohol .....	No Effect
Xylene .....	No Effect	10% Hydrochloric Acid.....	No Effect

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

#### APPROXIMATE COVERAGE RATES

3-5 mil dft .....	250–340 square feet per gallon
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Coverage rates vary depending upon surface porosity and texture, and application method. Follow directions for best results.

#### INSTRUCTION FOR USE

**SURFACE PREPARATION:** Surface preparation will vary according to the type of complete system to be applied. SS Aliphatic 60% Urethane 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 coating the surface must be cleaned and lightly sanded with 80–100 grit sandpaper. If multiple coats of SS Aliphatic 60% Urethane 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 will be needed for adequate adhesion between coats.

**PRIMING:** Typical interior decorative or light to medium traffic where a high build is not necessary: prime with SS Water Based 40 Epoxy. Topcoat with SS Aliphatic 60% Urethane (apply within the recoat time frame of the SS Water Based 40 Epoxy to ensure proper adhesion). Other top coat options could be SS Poly Pro 38 if extreme chemical resistance is not a problem. For a typical high build system\*: prime with SS Water Based 40 Epoxy. Intermediate coat should be SS Aliphatic 60% Urethane applied 10-20 mils thick. Finished topcoat with SS Aliphatic 60% Urethane.

*\*Note: Many times in industrial applications the applicators will prime the surface with the SS Aliphatic 100% Epoxy and topcoat with the SS Aliphatic 60% Urethane, skipping the SS Water Based 40 Epoxy. In these instances, adding approximately 1-2 ounces of xylene per gallon of the 100% Epoxy helps to wet out the surface. The main benefit of using the 3 step method with the SS Water Based 40 Epoxy as the primers is that it penetrates the surface better and helps fill in the voids to reduce or eliminate outgassing which could cause bubbles in the following coats.*

**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 by brush or roller with a 3/8"- 1/2" nap shedless roller cover within the usable pot life time frame, as well as the recommended temperature and relative humidity guidelines listed in the Technical Information section. If the material becomes thick while applying and sticking to the roller, 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 roller marks. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. Do not allow to Puddle! If recoating 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 60% Urethane 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 60% Urethane has a shelf life up to one year (12 months) in it's original, sealed, unopened container.

## PACKAGING

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SS Aliphatic 60% Urethane 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.
- SS Aliphatic 60% Urethane should be applied in thin coats. Do not puddle.

- Be aware that this product may be slippery when wet. Anti Slip additives may be needed to reduce surface slip hazards.
- SS Aliphatic 60% Urethane 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.

