

S-4000

2K Silicone Clear Coat

S-4000G Gloss
S-4000SG Semi-Gloss

PRODUCT INFORMATION

PRODUCT DESCRIPTION

S-4000 is a two component, low VOC, UV resistant clear coat system designed for long-term protection of both coated and uncoated substrates. It is designed to coat surfaces that require a hard, UV resistant thin coating.

S-4000 provides excellent sealing and UV protection for concrete and pavers. S-4000 may be used as a protective top coat over painted concrete surfaces to promote a greater slip resistant surface.

S-4000 may be applied Direct To Metal (DTM) as a high performance, long term corrosion treatment. It is particularly effective on non-ferrous metals such as aluminum, copper, brass, nickel, and galvanized steel. Also highly effective in marine or other environments exposed to salt air/mist, high humidity areas, acid or alkaline environments, or any surface subjected to salt corrosion from winter/severe conditions.

S-4000 can also be applied over weathered or oxidized surfaces to restore color and gloss.

S-4000 can withstand temperatures of up to 1,000° F+.

S-4000 is applied clear and will dry clear. When applied properly, it will not yellow. If gouged or damaged, the finish is repairable.

PRODUCT CHARACTERISTICS

- Excellent hardness
- Excellent mar, and abrasion resistance
- Excellent adhesion
- Heat tolerance (1,000° F with no visible effect)
- Excellent UV protection
- High gloss and semi gloss
- Does not yellow

RECOMMENDED SUBSTRATES

- Concrete
- Pavers
- Brick
- Non-ferrous metals
- Oxidized Paint
- New paint

Disclaimer

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of Blue River Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Blue River representative to obtain the most recent product data information and application bulletin.

APPLICATION INFORMATION

Stir thoroughly before use. Prior to application, coating should be completely clear. Read all label and Safety Data Sheet (SDS) information prior to use. SDS is available through Blue River Coatings by calling (888) 420-2628.

Apply by spraying, brushing with a high quality brush, wiping, with a paint pad. or dipping. Amount of coverage per gallon is dependent upon the applicator and the equipment used. For faster dry, product may be heat cured for 30 minutes at 250°/121°C, but ambient drying conditions (10-15 days for full cure) are sufficient if time is available.

Insure that proper protective clothing and equipment is used during application. Wear NIOSH approved respirator and solvent resistance gloves and safety goggles.

Recommended film thickness is 0.1-0.2 mil

Theoretical Coverage at 0.1 mil: 2,647 ft² (1,604 x 16.5% solids by volume) Coverage figures do not include loss due to surface irregularities and porosity or material loss due to application method or mixing.

Hardness: up to 4H-Excellent

Drying Time (Air Dry): Recoat – Before 1 hour @ 50% humidity and 75°F/23.9°C

Drying Time (Air Dry): Dust Free – 30 minutes @ 50% humidity and 75°F/23.9°C

Drying Time (Air Dry): Dry to Handle – 1-2 hours @ 50% humidity and 75°F/23.9°C

PRODUCT DATA

PRODUCT TYPE:	Silicone
COLOR:	Clear
SHEEN:	Gloss and Semi-gloss
CLEANUP:	Solvents —Acetone, MEK, etc.
FLASH POINT:	A— 73°F/23°C B— >150°F/60°C
	Product is not self igniting

APPLICATION INSTRUCTIONS

MIXING INSTRUCTIONS

To obtain the optimum performance, the mixing instructions for S-4000 must be followed precisely. Each component has been precisely formulated for optimum flow and hardness characteristics.

Wear appropriate safety equipment during mixing to include latex or nitrile gloves and safety goggles.

In a clean glass, metal, or HDPE plastic container, measure one to three parts by volume of S-4000 Part A to one to three parts by volume of S-4000 Part B, depending on gloss level desired. Do not use paper containers.

Under constant agitation with a laboratory magnetic stirrer, variable speed drill or drill press, mix the combined parts for 30 minutes or longer, uncovered or until the liquid becomes clear. Let the product stand uncovered for 1 hour prior to application. This induction or sweat-in period is required to insure that the product is catalyzed properly. During the mixing process, the combined products may generate a slight exothermic heat reaction and the sides of the container may feel warm to the touch. This reaction is normal. The catalyzed product will have a pot life of at least 12 hours. If temperatures are above 90°F/32.2°C, pot life may be shortened.

For small batches (16 ounces or less), it may be more efficient to hand shake the components as compared to mixing with equipment. For small batches, obtain a glass or HDPE container with a cap. Combine the appropriate volumes of part A and Part B in the container and cap tightly. Shake the container by hand every 3-5 minutes for 30 minutes. Remove or loosen the cap after each time the product is shaken. As stated in the above, the container may get slightly warm to the touch. Allow the product to sweat-in for an additional 2 hours prior to application.

CLEANING/PRETREATMENT

Cleaning and pretreatment are critical for success of any coating system. As each application may be different, the cleaning/pretreatment may be different as well. Blue River Coatings recommends different cleaning/pretreatment processes depending upon each application and the amount of cleaning required:

General Purpose Cleaning/Degreasing: Use a mild detergent such as Dawn dishwashing soap. This will be sufficient for general cleaning/degreasing of the surface to be coated. Use appropriate cleaning equipment (clean cloth/rag, scrubbing brush, spray bottle, pump-up sprayer or pressure washer) for the substrate in question. If a stronger cleanser is used, thoroughly rinse the surface to remove any cleaning solution residue prior to coating. If cleaning/coating a vertical surface, work methodically from the top of the substrate down to the bottom to insure adequate cleaning, rinsing (if required). Make sure the substrate to be coated is completely dry prior to S-4000 application.

Aggressive Cleaning/Degreasing for Bare Metal Surfaces (Aluminum and Other non ferrous metals): Use a triple combination acid based detergent, degreaser, and metal brightener. Use appropriate cleaning equipment (clean cloth/rag, scrubbing brush, spray bottle, pump-up sprayer or pressure washer) for the substrate in question. After cleaning, thoroughly rinse substrate to remove any cleaning residue prior to coating. If cleaning/coating a vertical surface, work methodically from the top of the substrate down to the bottom to insure adequate cleaning, rinsing (if required). Make sure the substrate to be coated is completely dry prior to S-4000 application.

APPLICATION

Application is by spraying, brushing, dipping, or wiping. Amount of coverage per gallon is dependent upon the applicator and the equipment used. For faster dry, product may be heat cured for 30 minutes at 250°F/121°C but ambient drying conditions (10-15 days for full cure) are sufficient if time is available. Regular air-drying is acceptable but cure times will be longer. Insure that proper protective clothing and equipment is used during application. Wear NIOSH approved respirator and solvent resistance gloves and safety goggles.

Spraying S-4000 with Standard Spray Painting Equipment

Wear appropriate safety equipment during mixing to include latex or nitrile gloves and safety goggles.

Mix S-4000 as instructed.

For best results, the fluid nozzle on the spray equipment should be very small, 0.5 to 1.0 will provide the best application. Fluid Nozzle sizes will be dependent upon the equipment used. Please consult with your local equipment supplier for the best equipment choice for the application. The viscosity of the catalyzed product is very close to water, 14-16 seconds on a Zahn #2 viscosity cup.

The first pass of spraying should be a light mist or fog coat. The second coat should be a light to medium wet coat. If a third application is necessary, allow the product to set/air dry for 10-20 minutes before recoating. Recoating cannot be accomplished if the coating has cured for an hour or longer.

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APPLICATION continued

Surface cure can be achieved in 30 minutes with the addition of heat (200-500°F/93-260°C) and sufficient air movement.

Parts can be handled in 1-2 hours when air-drying at 50% humidity and 75°F/23.9°C. Caution: Full cure may not occur for 10-15 days without adding heat. Note: Most catalyzed systems require 10-15 days before a qualified ASTM test can be performed.

Wiping S-4000

Wear appropriate safety equipment during mixing/application to include latex or nitrile gloves and safety goggles.

Mix S-4000 as instructed.

Apply S-4000 to a clean, soft, lint free cloth or on to the substrate with a finger pump mister/spray bottle.

Wipe the S-4000 on the surface in one direction only. Wipe in the same direction and manner until the substrate is completely coated. DO NOT RUB THE S-4000 INTO THE SURFACE.

Recoating cannot be accomplished if the coating has cured for an hour or longer.

Consult Blue River Coatings if additional information is required.

Dipping into S-4000

Wear appropriate safety equipment during mixing/application to include latex or nitrile gloves and safety goggles.

Mix S-4000 as instructed.

Submerge clean part into the S-4000 mixture and let the excess material drip off.

S-4000 has low surface tension and it may be necessary to wick off excess S-4000 accumulating at the bottom of the part by touching with a dry paper towel or cloth.

Parts that are dipped may need to be hung vertically to dry.

Recoating cannot be accomplished if the coating has cured for an hour or longer.

CLEAN-UP

Use solvent for cleanup such as acetone or MEK. Insure that all equipment for product application is thoroughly cleaned or disposed of according to local and state regulations. Insure that proper protective clothing and equipment is used during application and cleanup.

USE WITH ADEQUATE VENTILATION>

KEEP OUT OF REACH OF CHILDREN

Blue River Coatings believes the technical data contained herein is currently accurate. Blue River Coatings warrants that coatings represented herein meet their formulation standards. No other warranty is expressed or implied, including warranties of merchantability and fitness for a particular purpose. Published technical data and instructions are subject to change without notice. Contact your Blue River Coatings Representative for current technical data and instructions

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