

# **Polymer Steel SG**

PRODUCT DATA SHEET

#### **SELECTION & SPECIFICATION DATA**

Generic Type | 100% solids aluminum oxide filled surface grade resurfacer

Description

A surface grade, fluid applied epoxy coating used to provide both corrosion and erosion protection for degraded steel substrates. It resists a wide variety of chemicals and is engineered to repair corroded and worn metallic surfaces efficiently and economically.

- · Smooth, slick finish
- · Corrosion and galvanic resistant
- · Good overall chemical resistance
- **Features**
- High build capabilities
- Zero VOC
- · Exceptional adhesion
- · Excellent abrasion resistance
- · Chutes
- Hoppers
- **Typical Uses**
- Fan Blades
- Pump Housings
- · Impellers
- · Valve bodies

Color | Light Gray (0725)

Dry Film Thickness | 20 - 30 mils (508 - 762 microns) per coat

**Solids Content** | By Volume 100%

Theoretical Coverage Rate

1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) 80 ft²/gal at 20.0 mils (2.0 m²/l at 500 microns) 53 ft²/gal at 30.0 mils (1.3 m²/l at 750 microns) Allow for loss in mixing and application.

VOC Values | As Supplied : 0 g/l

Dry Temp. Resistance

Continuous: 250°F (121°C) Non-Continuous: 450°F (232°C)

- Inorganic Acids
- · Alkali Solutions

**Chemical Resistance** 

- Some Solvents
- Salts
- Oils

#### SUBSTRATES & SURFACE PREPARATION

**Metal** White Metal SSPC SP-5 or NACE No.1, 3.0 mil minimum profile.

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#### PERFORMANCE DATA

### All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	Results
Compressive Strength ASTM D695	20,500 PSI (141.3 MPa)
Shore D Hardness ASTM D2240	95-97
Taber Abrasion ASTM D4060	22 mg
Tensile Adhesion ASTM D4541	1,800-2,000 PSI (12.4-13.8 MPa)
Tensile Shear Adhesion ASTM D1002	3,000 PSI (20.7 MPa)

#### MIXING & THINNING

Add Part B to Part A and mix until a uniform consistency is achieved.

Apply to the prepared surface using a plastic squeegee or trowel. Recoat material as soon as it is firm to touch (normally 4-6 hours).

Mixing

If amine blush (oily film) is present wash with warm water and detergent and dry surface before recoating.

Ratio | 4.81:1 ratio by volume (A:B)

Pot Life

90 minutes @ 50°F (10°C) 40 minutes @ 70°F (21°C)

15-20 minutes @ 90°F (32°C)

#### **APPLICATION CONDITIONS**

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	80°F (27°C)	110°F (43°C)	110°F (43°C)	90%

Substrate temperature must be 5°F (3°C) above the dew point.

#### **CURING SCHEDULE**

Surface Temp.	Dry to Touch	Minimum Recoat Time	Minimum Cure for Normal Operations	Cure for Service
75°F (24°C)	4 Hours	4 Hours	8 Hours	24 Hours

Application of additional heat will shorten cure times.

#### **CLEANUP & SAFETY**

Cleanup | Use S-10 Cleaning Solvent or Carboline Thinner 2 to clean tools and equipment.

Safety

Read and follow all caution statements on this product data sheet and on the SDS. Employ normal safety precautions. Keep container closed when not in use.

Ventilation

Ventilation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. Use MSHA/NIOSH approved air respirators as needed.



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#### CLEANUP & SAFETY

Caution

Fire and explosion hazards: This product contains less than 1% volatile components, however, vapors are heavier than air and can travel long distances, ignite and flash back. Eliminate all Ignitions sources. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## PACKAGING, HANDLING & STORAGE

2.5 lb kit:

Packaged together in one cardboard box

Packaging | Part A: 0.13 Gallon (in a 32 oz white jar w/ lid)

Part B: 0.027 Gallon (in 4 oz white jar w/ lid) Includes mixing sticks and applicator squeegee.

Part A: 12 months

Shelf Life | Part B: 12 months

Material is not returnable after 90 days from purchase.

Warning: All Dudick products classified with DOT labels as either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

All products should be stored in a cool, dry area away from open flames, sparks or other hazards.

Shipping Weight (Approximate)

Outside packaging (2.5 lb kit): 3.4 lbs.

### WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.

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