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.
Features	• Smooth, slick finish • Corrosion and galvanic resistant • Good overall chemical resistance • High build capabilities • Zero VOC • Exceptional adhesion • Excellent abrasion resistance
Typical Uses	• Chutes • Hoppers • 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)
Chemical Resistance	• Inorganic Acids • Alkali Solutions • 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

Mixing

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).

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.

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

Packaging	**2.5 lb kit:** *Packaged together in one cardboard box* 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.
Shelf Life	Part A: 12 months Part B: 12 months Material is not returnable after 90 days from purchase.
Storage	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

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