

### Plasite® 9570 PRODUCT DATA SHEET

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

Generic Type | Low temperature bake high solids modified epoxy cured with an amine curing agent

Description

Plasite 9570 is a highly resistant film for chemical tank lining service. Specifically formulated for excellent abrasion resistance while retaining temperature, chemical and other physical properties to provide greater release properties to aid in the prevention of product hang-up or bridging problems.

**Features** 

Meets the requirements of US Food & Drug Regulations 21 CFR 175.300

• Excellent chemical resistance to all caustic solutions up to 200 °F (93 °C) and to a wide range of acids, solvents and water solutions

Color

Iron Oxide Yellow, Olive Oxide, \*Cream

\* for use of prime coat

Finish Semi-Gloss

**Dry Film Thickness** 

4 - 7 mils (102 - 178 microns) per coat

12 - 15 mils (305 - 381 microns) in two or three coats

Typical Uses

As a highly resistant film for chemical tank lining service

**Solids Content** 

By Volume 85% +/- 2%

Olive U33P & Yellow U60P: By Volume 81% +/- 2%

**Theoretical Coverage** Rate

1363 ft²/gal at 1.0 mils (33.5 m²/l at 25 microns) 341 ft²/gal at 4.0 mils (8.4 m²/l at 100 microns) 91 ft²/gal at 15.0 mils (2.2 m²/l at 375 microns) Allow for loss in mixing and application.

VOC Value(s)

Cream U86P: 1.07 lbs./gal (125 g/l) ± 2%

Olive U339 & Yellow U60P: 1.32 lbs./gal (158 g/l) ± 2%

Continuous: 300°F (149°C)

Dry Temp. Resistance

Non-Continuous: 400°F (204°C)

Immersion temperatures depend on particular reagent.

#### SUBSTRATES & SURFACE PREPARATION

Immersion: SSPC-SP10 Steel Non-Immersion: SSPC-SP6

Surface Profile: 2.0-3.0 mils (50-75 micron)

**Aluminum** 

Surface shall be clean and grease-free with a blast produced anchor pattern or "tooth" as described earlier under "Steel". In addition, the blasted surface shall be given a chemical treatment such as: Alodine 1200S available from Henkel Surface Tech, Iridite 14-2 produced by MacDermid Incorporated, Oakite Cryscoat 747 LTS and Oakite Cryscoat Ultraseal produced by Oakite Products.

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#### PERFORMANCE DATA

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

Test Method	System	Results
Surface Hardness (ASTM	Plasite 9570	Konig Pendulum Hardness of 191
Method D4366-84)	Flasile 9370	seconds (Glass Standard = 250 seconds)
Thermal Shock	Plasite 9570	Unaffected 5 cycles, minus 70
		°F to plus 212 °F (-57 to 100 °C)

#### MIXING & THINNING

#### Mixing

Thoroughly mix Part A then add Part B curing agent slowly and mix completely. The coating should stand approximately 30 minutes after the Part B has been thoroughly mixed.

#### Thinning

Thinner 71 is recommended for thinning and clean-up. It will always be necessary to thin the coating. The applicator must make exact thinner adjustments based on his equipment and air and surface temperatures. The following thinning guidelines are appropriate: Normal application temperatures and conditions will require the addition of approximately 10-20% thinner by volume with approximately 5% additional thinner added for each 5 °F (3 °C) of increased temperature. It is recommended that the amount of thinner included on each order amount to approximately 20% of the coating order.

Ratio 4:1

Pot Life | Approximately 3-4 hours @ 70 °F (21 °C)

#### APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

## Spray Application (General)

All spray equipment should be thoroughly cleaned and the hose in particular should be free of old paint film and other contaminants.

Use standard production type spray guns such as: DeVilbiss JGA-510 (Fluid E, Air 797)

Binks #2001 (Fluid 66-SS, Air 63-PB)

Graco P800 (Fluid 04, Air 02)

Liquid pressure: 1500-1800 psi

Tip size: 0.017-0.021"

Airless Spray

Air pressure: 60-80 lbs at gun Pot pressure: 30-35 lbs

Adjust spray gun by first opening liquid valve and then adjusting air valve to give an 8-12" wide

spray pattern with best possible atomization.

**Brush** Not normally recommended except for touch-up, repairs or at weld areas prior to spraying.



Airless Spray

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#### APPLICATION PROCEDURES

**Note:** Prior to spray application, stripe brush all welds, attachments and surface irregularities using Plasite 9570 thinned a minimum of 50% by volume with Thinner 71.

Apply a "mist" bonding pass.

Allow to dry approximately one minute but not long enough to allow film to completely dry. Apply crisscross multi-passes, moving gun at fairly rapid rate, maintaining a wet appearing film. Observe the coating surface and when it appears to be flowing together, you will have an average of 4-5 mils wet film. By allowing the solvents to flash-off for a few minutes, several more fast multipasses may be applied until you have a film thickness of approximately 5-7 mils DFT (approximately 8-10 wet mils). Repeat this procedure for the second coat to obtain a 12-15 mill DFT.

Overcoat time will vary both with temperature and ventilation and will require from 16-24 hours at 70-90 °F (21-32 °C) for enclosed spaces. Refer to DRYING TIME section. Remove all overspray by dry brushing or scraping if required.

Air dry with ventilation a minimum of 60 minutes prior to introducing heat.

#### APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	60°F (16°C)	60°F (16°C)	0%
Maximum	90°F (32°C)	110°F (43°C)	110°F (43°C)	80%

#### **CURING SCHEDULE**

Surface Temp.	Tack Free
70°F (21°C)	24 Hours
90°F (32°C)	16 Hours

Drying time between coats may be decreased by force curing. Do not force cure at temperatures in excess of 150  $^{\circ}$ F (65.6  $^{\circ}$ C). When force curing at temperatures between 120-150  $^{\circ}$ F (48.9-65.6  $^{\circ}$ C) the length of cure must not exceed 12 hours.

#### CAUTION: Overbaking between coats will result in loss of adhesion.

Plasite 9570 is classified as a relatively thin film coating and should not be used for total and continuous immersion in certain chemicals which have extremely high corrosion rates to mild steel and other substrates. Use in such chemical exposure should be confined to fumes and spills.

#### Final Bake:

4 Hours at 200 °F (93 °C) Minimum (Metal Temperature)
OR

#### **Curing Details**

2 Hours at 250 °F (121 °C) Minimum (Metal Temperature)

\*A final bake of 250 °F (121 °C) will increase resistance to certain exposures and is generally recommended when the exposure is considered to be extremely severe.

#### **CLEANUP & SAFETY**

Cleanup | Plasite Thinner 71

Safety

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

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#### CLEANUP & SAFETY

Ventilation

When used in enclosed areas, thorough air circulation 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. If not able to monitor levels, use MSHA / NIOSH approved respirator.

#### PACKAGING, HANDLING & STORAGE

Packaging | 1 gallon (3.79 litres) and 5 gallon (18.93 litres) units

Part A: 12 months (6 months in Cream color)

Shelf Life Part B: 24 months

Material in stock should be turned upside down every 3 months.

Storage | Store indoors

Shipping Weight | 13 lbs/gal (1.56 kg/l) (Approximate)

Flash Point (Setaflash) | Part A: 95 °F (35 °C) | Part B: 48 °F (9 °C)

#### 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.