product data

carboline®

PLASITE® 9570

Includes PLASITE 9570HAR & 9570TFE

TYPE
A low temperature bake high solids modified epoxy cured with an amine curing agent. PLASITE 9570HAR is specifically formulated for excellent abrasion resistance while retaining temperature, chemical and other physical properties of PLASITE 9570. PLASITE 9570TFE is specifically formulated to provide greater release properties to aid in the prevention of product hang-up or bridging problems.

INTENDED USE
As a highly resistant film for chemical tank lining service.

GOVERNMENT AGENCY ACCEPTANCE
The ingredients in the PLASITE 9570 systems meet the requirements of the U.S. Food and Drug Regulations as listed under Title 21, Chapter 1, 175.300. PLASITE 9570 systems have been accepted by the U.S. Environmental Protection Agency for use on surfaces which contact potable water.

TEMPERATURE RESISTANCE
Non-immersion basis is 400°F for short periods; 300°F continuous. Immersion temperatures depend on particular reagent.

STANDARD COLORS
PLASITE 9570 – Cream, Iron Oxide Yellow; Olive Oxide;
PLASITE 9570HAR - Light Gray
PLASITE 9570TFE - Iron Oxide Yellow; Olive Oxide; Lt. Blue

Note: Will discolor when exposed to UV.
* for use of prime coat

VOC CONTENT

	Coating as Supplied (Determined Theoretically)		Thinned 10% by Volume with Thinner #71 (Determined Theoretically)	
Color	**Lbs./Gal.**	**g/L**	**Lbs./Gal.**	**g/L**
Standard	1.04 ± 2%	125 ± 2%	1.54 ± 2%	184 ± 2%

VOC content varies between colors. Contact Carboline Technical Service Department for VOC of specific colors.

FILM THICKNESS PER COAT
A 6 to 7 mil film is produced in one multi-pass spray coat.
Cream color may require two coats to achieve 6-7 mils dft.

COVERAGE
1310 mil ft^2/gal. (theoretical). Two coats will produce a 12 to 15 mil DFT film required for immersion service. For estimating purposes, 77 ft^2/gal. will produce a 12 to 15 mil dry film (20% loss included).

DRYING TIME
Surface will normally be tack-free in 16 hours at 90°F or 24 hours at 70°F. Drying time between coats may be decreased by force curing. Do not force cure at temperatures in excess of 150°F. When force curing at temperatures between 120 to 150°F, the length of cure must not exceed 12 hours. **Caution**: Overbaking between coats will result in loss of adhesion.

THINNERS
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 to 20% thinner by volume with approximately 5% additional thinner added for each 5°F of increased temperature.

PHYSICAL SPECIFICATIONS

Pigments: Iron oxide yellow, iron oxide black, titanium dioxide and inerts and special abrasion resistant pigments for PLASITE 9570HAR.

Solids: 92% ± 2% by weight; 85% ± 2% by volume.

Pot Life: Approximately 3 to 4 hours at 70°F.

Shelf Life: 12 months at 70°F in most colors; 6 months in Cream color. Material in stock should be turned upside down every 3 months.

Shipping Weight: 9570 & 9570TFE: Approximately 13 lbs./gal., 9570HAR: 14.3 lbs./gal.

Abrasion Resistance: Average loss per 1000 cycles, Taber CS-17 Wheel, 1000 gram weight

PLASITE 9570 & 9570TFE - 26.5 milligrams

PLASITE 9570HAR - 10.8 milligrams

Surface Hardness: Konig Pendulum Hardness of 191 seconds (Glass Standard = 250 seconds); ASTM Method D4366-84.

Thermal Shock: Unaffected 5 cycles, minus 70°F to plus 270°F.

Gloss: 50 at 60°.

CHEMICAL RESISTANCE
Excellent resistance to all caustic solutions up to 200°F, combined with chemical resistance to a wide range of acids, solvents and water solutions. 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.

It is recommended that the amount of thinner included on each order amount to approximately 20% of the coating order.

FINAL BAKE
The final bake is based on metal temperatures.

4 Hours at 200°F Minimum (Metal Temperature)

2 Hours at 250°F Minimum (Metal Temperature)

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

SURFACE PREPARATION
Steel
Immersion Service
All sharp edges shall be ground to produce a radius and all imperfections such as skip welds, delaminations, scabs, slivers and slag shall be corrected prior to abrasive blasting. Skip welds shall be welded solid.

Surface shall be contaminant-free. Organic solvents, alkaline solutions, steam, hot water with detergents, heat or other methods that will completely remove dirt, oil, grease, etc. may be used. Additional decontamination may also be necessary.

The surface shall be blasted to an SSPC-SP5 or NACE No. 1 white metal surface using a Venturi blast nozzle supplied with 80 to 100 psi. The air supply shall be free of oil, water and other contaminants. An anchor pattern or "tooth" in the metal shall correspond to approximately 20 to 25% of the total film thickness of the coating.

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Contaminated grit shall not be used for the finish work.
The blasting media used shall be natural abrasive, steel grit, or slag grit (similar or equal to BLACK BEAUTY®). These abrasives shall be sharp with a hard-cutting surface, properly graded, dry and of best quality. The media shall be of proper size to obtain the specified anchor pattern and shall be free of objectionable contaminants.

The anchor pattern shall be sharp and no evidence of a polished surface is allowed.

Remove all traces of grit and dust with a vacuum cleaner or by brushing. Care must be taken to avoid contaminating the surface with fingerprints or from detrimental material on the workers' clothes.

The surface temperature shall be maintained at a minimum of 5°F above the dew point to prevent oxidation of the surface. The coating shall be applied within the same day that the surface has been prepared. Visible oxidation or condensation is not allowed.

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 747LTS and OAKITE CRYSCOAT ULTRASEAL produced by Oakite Products

For immersion, blasting with a sharp grit followed by the chemical surface treatment is required.

Note: On metallic surfaces prepared only by chemical etching, the total coating film thickness applied should be restricted to only half the film normally applied to blasted surfaces. This reduced film thickness should be considered during selection of the coating for the service and the type of surface preparation performed.

APPLICATION
Mixing
The curing agent and coating are supplied in separate containers at a 4:1 ratio. For splitting purposes, use 1 part curing agent to 4 parts coating by volume. Thoroughly mix coating then add curing agent slowly and mix completely with coating. The coating should stand approximately 30 minutes after the curing agent has been thoroughly mixed.

Spray
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:

GUN	FLUID	AIR
DeVilbiss JGA-510	E	797
Binks #2001	66-SS	63-PB
Graco P800	04	02

When airless spray equipment is used, the recommended liquid pressure is 1500 to 1800 psi with tip size from .017" to .021". Thinning requirements are more than for conventional spray.

Note: Be aware that PLASITE 9570HAR will cause accelerated wear to airless equipment lower units and spray tips due to abrasion resistant pigment.

Air supply shall be uncontaminated. Adjust air pressure to approximately 60 to 80 lbs. at the gun and provide 30 to 35 lbs. of pot pressure. Adjust spray gun by first opening liquid valve and then adjusting air valve to give an 8" to 12" wide spray pattern with best possible atomization.

Apply a "mist" bonding pass.

Allow to dry approximately one minute but not long enough to allow film to completely dry.
Note: When applying the PLASITE 9570TFE system, use the standard PLASITE 9570 as the base coat.

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 to 5 mils wet film. By allowing the solvents to flash-off for a few minutes, several more fast multi-passes may be applied until you have a film thickness of approximately 5 to 7 mils DFT (approximately 8 to 10 wet mils). Repeat this procedure for the second coat to obtain a 12 to 15 mill DFT.

Overcoat time will vary both with temperature and ventilation and will require from 16 to 24 hours at 70 to 90°F 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.

After the air dry period has elapsed, the temperature should be raised approximately 30°F in increments of 30 minutes until the desired temperature is reached. Refer to FINAL BAKE.

Equipment must be thoroughly cleaned immediately after use with Plasite thinner to prevent the setting of the coating.
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.

Brush
Normally not recommended except for touch-up, repairs or at weld areas prior to spraying.

INSPECTION
Degree of surface preparation shall conform to appropriate specification as outlined in SURFACE PREPARATION section. Film thickness of each coat and total dry film thickness of coating system shall be determined with a non-destructive magnetic gauge properly calibrated.
Refer to Plasite Bulletin PA-3 for inspection requirements.

SAFETY
READ THIS NOTICE
SAFETY AND MISCELLANEOUS EQUIPMENT

For tank lining work or enclosed spaces, it is recommended that the operator provide himself with clean coveralls and rubber soled shoes and observe good personal hygiene. Certain personnel may be sensitive to various types of resins which may cause dermatitis.

FIRE AND EXPLOSION HAZARDS: PRODUCT CONTAINS LESS THAN 1% VOLATILE COMPONENTS. HOWEVER, VAPORS ARE HEAVIER THAN AIR AND COULD TRAVEL LONG DISTANCES, IGNITE, AND FLASHBACK. ELIMINATE ALL IGNITION SOURCES. Keep away from heat, sparks and open flame and use necessary safety equipment, such as, air mask, explosion-proof electrical equipment, non-sparking tools and ladders, etc. Avoid contact with skin and breathing of vapor or spray mist. When working in tanks, rooms and other enclosed spaces, adequate ventilation must be provided. Respirators or fresh air supplied hoods may be required. Refer to Plasite Bulletin PA-3. Keep out of the reach of children.

CAUTION - Read and follow all caution statements on this product data sheet, material safety data sheet and container label for this product.

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An RPM Company

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