PRODUCT INFORMATION BULLETIN

PRODUCT NAME: Silicone Modified Recoat Lacquer

REFERENCE NO.: 549 Line

BULLETIN NO.: PIB36

ISSUE DATE: 11/18

GENERAL INFORMATION:

Product Type: Air dry Silicone Modified Acrylic Lacquer

Uses: This product is designed for spray application touch up/recoat of prepainted metal. Durability performance is designed to approximate that of the original prepainted metal coating, however due to their different chemical nature, they will weather differently.

Note: 549 line is only to be applied by professional applicators for the recoat of broad areas. 549 line is recommended for repainted surfaces used for collection of drinking water.

PROPERTIES:

Colour Range:	A wide colour range is possible approximately matching the colour and gloss of the pre-painted metal coating.
Gloss Level:	As required to approximately match that of the prepainted metal coating. Normal gloss is 25% at a 60° viewing angle, however gloss levels ranging between 10-80% are possible.
Abrasion Resistance:	Good
Flexibility+:	Moderate
Hardness+:	Excellent (H-2H Pencil)
Durability+:	Very good
Solvent Resistance:	Fair. (poor for strong oxygenated solvents such as methyl ethyl ketone)

Package Viscosity: 55-65 secs ISO 6 @ 25^{o}C

(+over suitable cleaned, prepared, prepainted metal surface)

Theoretical Spreading Rate: 10-13 m^2/litre (at 25 micrometres DFB, conventional/airless spray application)

Weight Solids*: 25-40% (will vary from colour to colour)

Volume Solids*: 25-35%

*Note: If packaged in spray paks, these figures will be lower due to the presence of additional spray thinner and propellant.

Shelf Life: 24 months (older material should be evaluated for colour, gloss and application properties before use).

Dry Film Build: 25-35 micrometres (usually obtained from two coats of airless application)

Containers Sizes Available: Selected colours supplied in 20L containers

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PROCESS INFORMATION

Surface Preparation:

a. Repainting of areas showing mould: It is necessary to treat all areas showing mould growth with a mouldicide. Prior to painting, these areas must also be abraded with scotch brite (or similar).

b. Touch Up of Small areas: Wipe damaged area with 922-05184 PPG PREPSOL or turpentine (or equivalent) to remove dirt, oil etc. Lightly sand the coating with P500 (or similar) to remove gloss in order to provide an adhesion key for the lacquer. Avoid scuffing back to bare metal. Wipe over with PREPSOL on a clean rag and immediately wipe dry.

c. Repainting of large areas: It is imperative that the surface to be overpainted has sound adhesion. Perform a taped adhesion check on all areas to be overpainted. Once sound adhesion is established, it is also imperative that all chalked pigment or any other dirt be removed by either low pressure "blasting" with a sand/water slurry or high pressure (eg. 5000 psi) water spray. Abrasion of the aged surface with long bristle brooms may be required to provide a sound adhesion base for subsequent overpainting. For surfaces that are <12 months old, it is essential to roughen up surfaces with scotch brite (or similar). Avoid scuffing through to the primer or bare metal. Wipe or mop with PREPSOL as required using clean rags or mops and wipe dry, working in small areas at a time. Where primer or metal substrate is exposed, the following treatment/priming techniques must be employed.

(i) Where substrate corroded (perforation or millscale corrosion is not within the scope of this data sheet):

Use a wire brush or plastic scouring pads to remove any red or white rust deposits followed by treatment with 978-10007/PPG Deoxidine 624 rust remover (or equivalent). Wash off thoroughly (as directed on the Deoxidine 624 data sheet) before priming immediately as directed in (ii).

(ii) Where ZINCALUME, Zinc Coating or Steel Base Exposed:

Scuff lightly, feathering painted edges. Wipe with PREPSOL on a clean rag and dry. Brush or spray apply PPG CT Etch Primer (or equivalent). Restrict application of CT Etch Primer to bare metal areas only, paying particular attention not spray CT Etch Primer on pre-painted surfaces. Adhere strictly to the directions on the labels, particularly noting the recommended drying times and film builds.

Alternatively, instead of applying PPG CT Etch Primer, a two pack epoxy primer, such as PPG D834 DP40, can be applied to larger areas of a properly cleaned prepainted metal surface (as described above) followed by normal spray application of 549-Line silicone Modified Recoat Lacquer. Strict adherence to minimum topcoat dry film builds are required when using an epoxy primer.

APPLICATION

a. Touch Up of small areas:

Do not apply lacquer directly to bare metal or primer only areas larger than a five cent piece. If larger areas are exposed, prime as for b (ii) above.

Brush: Apply lacquer with a small brush using a spotting technique. Use 920-T030/2K Slow Thinner for thinning and clean up.

Spray Paks: Detailed application directions are shown on the Spray Pak label.

b. Repaint of large areas by air assisted or airless spray:

i. Thinning

Depending on conditions, Silicone Modified Touch Up Lacquer should be thinned with 922-05158 Dulon Retarder Thinner (normal), or 920-T030/2K Slow Thinner (for extremely hot conditions or to improve the second coat wet edge), for application by air assisted/airless spray gun. Contact PPG Industries Australia Pty Limited for alternative thinners to suit other unusual conditions.

		% Volume Reduction	
Ambient Temp. C	Thinner	Air Assisted Spray	Airless Spray
15-20	922-05158	100-150	20-30
20-27	922-05158 or 920-T030/2K*	100-150	20-30

27-37	920-T030/2K*	100-170	20-40

* 920-T030/2K Slow Thinner is recommended because as the temperature increases, a very slow evaporating solvent is required to obtain a smooth, uniform film with reasonable overspray melt-in. As roof temperatures can be 20-50^{o}C hotter than the air temperature, higher ratios (of the recommended range) maybe necessary to obtain a smooth finish.

Do not attempt large areas of respraying on days of high wind velocity or at temperatures over 37^{o}C.

Do not apply at temperatures below 10^{o}C.

Work to maintain a wet edge or end an edge at a logical lap or end joint. Where possible (on smaller roofs), this would mean a complete sweep from capping to gutter.

Choose the best fan size for the job. Fan size (the width of the spray pattern) determines the area covered with each pass. For a given tip orifice, a wider fan delivers a thinner coat, and faster coverage on broad, open surfaces. Increasing the orifice size proportionally to the fan width will enable the coating thickness to remain constant. If this is done correctly speed of the operators hand and distance from the work surface can remain constant for a given film build. Conversely, a smaller orifice can be combined with a narrower fan for confined spaces.

ii. **a. Spraying - Air Assisted**

	Fluid Nozzle	Air Cap	Fluid Pressure	Operating Pressure	Fluid Emission
Suction	1.8-2.2 mm	0.34-0.42 m^3/min	-	310-550kPa (45-80psi)	200-400 cm^3/min
Pressure	1.1-1.4 mm	0.28-0.42 m^3/min	55-100kPa (8-15psi)	310-550kPa (45-80psi)	400-500 cm^3/min

The spray pattern should be adjusted to give a fan length of 150-200 mm when the nozzle of the gun is held 150-200 mm from the workpiece.

b. Spraying - Airless

Spray tip: 0.28mm - 0.33mm (11-13 thou.)

Pressure: 10,500-14,000kPa (1500-2000 psi)

The spray pattern should be 200mm long when the tip is held 300mm from the workpiece.

When spraying: Air assisted or airless, it is essential that a uniform build is applied to all surfaces. To achieve this, the gun tip should be 200-300mm from the workpiece, the gun should move parallel to the surface, with uniform strokes ensuring that the spray pattern overlaps each previous pass by one quarter to one half of the fan width.

To obtain the recommended film build of 25-35 micrometres (dry), the following number of coats should be applied (approximate guide only as this will depend on the percentage reduction of the lacquer and the speed of application etc).

Air Assisted:
Suction - 2-3 double headers
Pressure - 2-3 coats

Airless:
2 coats
Cure/Dry Time:
Air dry. (Tack free 10 mins. At 25^{o}C/50% relative humidity)

iii Equipment Clean Up
Use the same thinning solvents for clean up. Alternatively, use 920-04310 PPG Clean Up Thinner.

HEALTH AND SAFETY PRECAUTIONS – Refer MSDS:

This is a solventborne flammable material and precautions described in the product Material Safety Data Sheet must be carefully followed.

TRANSPORTATION AND STORAGE – Refer MSDS:

Density (weight/litre): 0.9-1.1 kg/ltr* (will vary from colour to colour)

*May be lower if packed in Spray Paks

Dangerous Goods class/Flashpoint: 3.1/-18^{O}C