



PROTECTIVE COATINGS DATA SHEET

834 Series ClovaThane Aliphatic Urethane

General Properties

ClovaThane is a two component aliphatic acrylic urethane that exhibits a very high gloss (wet look) and has superior gloss and color retention. ClovaThane has excellent flexibility, stain, chemical and abrasion resistance. It is available in white and colored bases permitting a match to almost any color. ClovaThane is a two component urethane with base 834 Series "A" and converter 83400 "B" supplied in separate containers.

Recommended Uses

For application to trucks, buses, aircraft, farm machinery, oilfield drilling and service equipment, industrial equipment, exterior of storage tanks and structural steel. ClovaThane is also used as a chemical resistant, gloss retentive finish over epoxy intermediate and zinc rich primer systems.

Product Information

Generic Type:

Aliphatic Acrylic Urethane

Pigment Type:

Light fast pigments

Color:

White and colors

Finish:

Very High Gloss (wet look)

Average Volume Solids:

60%

Average Weight Solids:

72%

Recommended Mills Per Coat:

2 - 3 mils Dry
3.5 - 5 mils Wet

Theoretical Coverage:

961 sq. ft./gal. @ 1 mil Dry Film Thickness
24 m²/L @ 25 microns Dry Film Thickness
Actual Coverage will be less due to job conditions, type of substrate, loss in can and efficiency of application equipment.

Mixed Ratio 4:1:

4 parts 834 Series "A": 1 part 83400 "B"

Induction Time:

15 - 20 minutes @ 77°F (25°C)

Pot Life:

3 hours at 75°F (24°C), Less at higher temperatures

Viscosity Mixed:

60 - 65 K.U.

Temperature Resistance (Dry):

200°F (93°C) Continuous
250°F (120°C) Intermittent

V.O.C. Mixed:

405g/L (3.37 lbs./gal.)

Maximum Thinning to Obtain VOC of 420 gal/L (3.5 lbs./gal.):

27.1 mL/L (3.5 fl. oz./gal.)

Thinner:

C-760-1 Slow Evaporating C-760-2 Fast Evaporating

Clean Up:

C-25 or C-760

Accelerator:

A-66 Urethane Accelerator

Methods of Application

Airless Spray

Speeflo Atlas 30:1 with tip sizes .009" - .013" or equivalent

Air Assisted Airless

Speeflo Atlas 15:1 with 800 - 100 psi fluid pressure and 25 - 30 psi atomizing pressure.

H.V.L.P.

Binks Model Mach 1 92 x 95AP (pressure) or equivalent

Conventional

Binks Model 95GUN 63BSS x 63PB (pressure) or equivalent

Brush/Roller

Brushing is limited to small areas or touch-up

Drying Time

Substrate Temperature	Touch Dry	Hard Dry	Overcoat Interval		
			Minimum	Maximum	Normal
77°F (25°C) Do not apply below 50°F (10°C)	1 hour	12 hours	4 hours	3 days	4 hours

Recommended Primer

Steel	83021 ClovaPrime 21/ 83040 C-113 Non-Lifting Phenolic Primer/ Also as finish coat over select Cloverdale Hi-Build Epoxy or Zinc Rich Primer Systems/ Hi-Build Epoxy, ClovePrime 55
Galvanized	83050 Vinyl Wash Primer
Aluminum	83050 Vinyl Wash Primer
Wood	15910 Alkyd Speed Primer

Surface Preparation

Surface to be coated must be clean, dry and free from surface contamination. On ferrous metals a suitable primer should be used. Epoxy primers must be overcoated within the maximum overcoat window or the surface must be sanded to provide a profile for adhesion purposes.

Typical Resistance (Non-Immersion)

WEATHER	Excellent	SALT WATER	Excellent	ACIDS	Good
MOISTURE	Excellent	FRESH WATER	Excellent	ALKALIS	Good
GASOLINE	Excellent	ABRASION	Very Good	OIL	Excellent

Limitations

After ClovaThane has cured more than 3 days, the surface will require sanding for adhesion purposes. For best results apply when substrate temperature is above 50°F (10°C), and at a minimum of 5°F (3°C) above the dew point. Coating should not proceed when the relative humidity is above 85%.

Mixing Instructions

Mix base ("A") and curing agent separately with good agitation. Add converter or curing agent ("B") to base component and mix thoroughly until homogenous. Allow to react in can for 15 - 20 minutes (induction time). Reduce as required for application. Carefully maintain water traps in all air lines. Humid conditions can lead to condensation during the curing cycle, resulting in loss of gloss. Use of accelerator will shorten pot life, please measure carefully.

Safety Precautions

This product is for industrial use only. **Refer to Material Safety Data Sheet for proper health and safety information.**

Notes

Mixed Paint is moisture sensitive.

Storage and Handling

Flash Point	19°F (-7°C) T.C.C.
Produce Weight	A=8.34 lbs. B= 1.78 lbs./U.S. gallon, container extra
Storage	See your Cloverdale Paint Representative
Package Size	1 gallon kit 3.02 L 834 Series A 0.76 L 83400 B 5 gallon kit 15.12 L 834 Series A 3.78 L 83400 B

Warranty Disclaimer

Cloverdale Paint manufactures quality products. In the event that this product is defective or in any way unsuitable for the application for which it is sold, Cloverdale Paint Inc. will replace the product free of charge. The warranty provided by this data sheet is the only warranty or guarantee of quality made in respect of this product by Cloverdale Paint Inc. By purchasing this product the customer accepts this warranty in lieu of all others, and waives all claims to any other remedy arising from any warranty or guarantee of quality, whether such warranty or guarantee of quality was made expressly to the customer or implied by any applicable law.

ClovaThane PERFORMANCE CRITERIA

1. Abrasion Resistance

Method - ASTM D4060 Abrasion Resistance or Organic Coating by Taber Abrader, 1000 g/load, CS17 Wheel, 1000 Cycles.

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Requirements – Not more than 85 mg loss.

2. Adhesion

Method - ASTM D4541, Elcometer Adhesion Test

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Requirements –
Not less than 1000 psi

3. QUV Accelerated Weathering

Method - ASTM G53, QUV using UVB 313 lamp

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Requirements – Not more than 5% loss of gloss after 1000 hours.

4. Chemical Resistance

Method – Room Temperature covered spot test for 1 week.

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Coating System was Exposed To-
5% Hydrochloric Acid Solution; 5% Sulphuric Acid Solution; 5% Sodium Hydroxide Solution; 5% Sodium Hypochlorite Solution; 5% Sodium Phosphate Solution; Heavy Duty Liquid Detergent

Requirements – Unaffected - Slight discoloration permitted.

5. Salt Spray (Fog)

Method – ASTM B117

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Requirements – After 1500 hours, no blistering, cracking or delamination of film. No more than 1/16" rust creepage at scribe.

6. Humidity Condensation

Method – ASTM D4585

Coating System – ClovaPrime 21 Primer, ClovaThane topcoat

Requirements – No blistering, cracking or delamination of film after 1000 hours.



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