

Surface Coating Instructions

DuPont™ Surlyn Reflection Series® resins

DuPont Packaging and Industrial Polymers



This document contains recommendations for coating surfaces of parts made from molded-in-color DuPont™ Surlyn Reflection Series® resins. Recommendations are intended for clearcoating or basecoating and clearcoating of such surfaces.

Surfaces which are not smooth or that have gouges or deep scratches should not be repaired with these instructions.

DuPont Automotive's ChromaSystem™ Technical Manual provides additional information and instructions that you should refer to when using the following products referenced in these procedures:

- **Plas-Stick™ Plastic-Prep 2319S** - surface cleaner.
- **Plas-Stick™ Adhesion Promoter for Plastics 2322S** - adhesion promoter for clear coating unprimed surfaces.
- **Low VOC Prime 'N Seal™ 2710S/2740S/2770S** - three component non-sanding primer.
- **ChromaClear® Multi-Use V-7500S** - two component urethane clear.
- **ChromaBase® Basecoat** - colored basecoat.

Overview:

Surface Preparation:

Clean surface with soap and water.

Clean surface with Plas-Stick™ Plastic Prep 2319S.

Roughen surface⁽¹⁾ - **do not sand** surface.

Clean surface again with Plas-Stick™ Plastic Prep 2319S.

⁽¹⁾The high gloss Surlyn Reflection Series® surface requires some roughening of the surface for adhesion. A medium duty abrasive pad (Scotch Brite red) rubbed over the surface several times will roughen the surface adequately. Excessive roughening or use of a highly abrasive pad may cause smearing or abrasion and damage the surface, which will subsequently show through in painting. Cold gas polishing does not provide acceptable polishing without smearing.

Basecoat color followed by clearcoat application:

Spray-apply Prime'NSeal™ 2710S/2740S/2770S Non-Sanding Primer-Sealer.

Spray apply ChromaBase® basecoat mixture.

Spray apply ChromaClear™ clearcoat mixture.

Clearcoating molded-in-color Surlyn Reflections® surface:

Spray apply Plas-Stick™ Adhesion Promoter for Plastics 2322S

Spray apply a two-component urethane clear ChromaClear® Multi-Use V-7500S 2K Urethane ClearCoat.

Surface Preparation:

Wash surface with mild detergent and hot water.

Clean surface with Plas-Stick™ Plastic-Prep 2319S. Use a clean cloth for this step and repeat applications as needed.

Roughen surface⁽¹⁾ - **do not sand** - roughen with a Scotch Brite red scuff pad. Reapply 2319S to remove sanding sludge and to eliminate static. Wipe dry.

Tips for success in surface preparation

- To test the surface preparation, pour a cap of 2319S on the prepared area. 2319S will sheet cleanly over a clean substrate. If 2319S beads up, the surface is not clean.
- For difficult-to-clean and textured plastics, expose the substrate for 30 minutes at 140°F after cleaning and sanding (if applicable). Do not sand after this elevated temperature exposure. Reapply 2319S after this exposure.

Basecoat color followed by clearcoat application:

Review Low VOC Prime'N Seal™ instructions in the ChromaSystem™ Technical Manual for mixing and application information for spraying this primer onto a surface prepared under "Surface Preparation" guidelines provided above.

Review ChromaBase® Basecoat instructions in the ChromaSystem™ Technical Manual for mixing and application information for spraying this basecoat onto the primed surface.

Review ChromaClear® Multi-Use V-7500S instructions in the ChromaSystem™ Technical Manual for mixing and application information for spraying this clearcoat onto the basecoat.

Clearcoating molded-in-color Surlyn Reflection Series® surfaces:

Review Plas-Stick™ Adhesion Promoter for Plastics 2322S instructions in the ChromaSystem™ Technical Manual for application information for spraying this adhesion promoter onto a surface prepared under "Surface Preparation" guidelines provided above. (Note that Plas-Stick™ Flexible Adhesion Sealer 2340S should not be used as recommended in this instruction sheet.)

Review ChromaClear® Multi-Use V-7500S instructions in the ChromaSystem™ Technical Manual for mixing and application information for spraying this clearcoat onto the basecoat.

Marshall Lab adhesion test results using these coating procedures:

Table 1 — Coating Results, Natural Plaques
Surface Prep / Prime / Basecoat / ClearCoat

Natural Surlyn Reflection Series® SG201 U Substrate:			
Prep	Red Scotch Brite Pad		
Primer Sealer	2740S	2740S	2740S
Base Coat	Solid White	Lt. Silver Metallic	Red Pearl Metallic
ClearCoat	V-7500S	V-7500S	V-7500S
Cross hatch paint adhesion-testing results:			
Initial Adhesion	100%	100%	100%
Humidity Resistance	100%	100%	100%
Water Immersion	100%	100%	100%
Environmental Cycle	100%	100%	100%
Impact Test height cm / (Pass/Fail)	80 / P	80 / P	80 / P
Stone Chip Test	8	7+	7+

Table 2 — Coating Results, Various Colored Plaques
Surface Prep / Adhesion Promoter / ClearCoat

Surlyn Reflection Series® SG201 U Substrate				
Plaque Color	Yellow	Orange	Blue	Red
Prep	Red Scotch Brite Pad			
Solvent Wipe	2319S			
Adhesion Promoter	2322S			
ClearCoat	V-7500S			
Cross hatch paint adhesion-testing results:				
Initial Adhesion	100%	100%	100%	100%
Humidity Resistance	100%	100%	100%	100%
Water Immersion	100%	100%	100%	50%
Environmental Cycle	100%	100%	100%	95%
Impact Test height cm / (Pass/Fail)	160 / P	160 / P	160 / P	160 / P
Stone Chip Test	7+	7+	7+	7+

Test procedure information:

Test ID / Other	DuPont #ID	DuPont Title	Similar ASTM or SAE Method
Initial Adhesion	WILB 0724	Adhesion Testing, Crosshatch & "X"	D-3359
Humidity Resistance, 120 hours, 100°F temperature, 100% humidity	WILB 1506	Humidity Cabinet	B117
Water Immersion, 240 hours, 100°F temperature	WILB 2002	Water Bath (Bldg. 231-50)	D714
Environmental Cycle		Automotive Environmental Cycles	GM9505P (Cycle A)
Impact Test, 4 lb. impact rod (See table for drop height)	WILB 0717	Impact Test	D2794-84
Stone Chip Test, Std, Room Temp.	WILB 0701	Gravelometer Test	SAE-J-400

DuPont Worldwide

Americas

DuPont Packaging & Industrial Polymers
Chestnut Run Plaza 730
974 Centre Road, Wilmington, DE
19805
Tel: +1 302 774 1000
Tel: +1 800 628-6208
Fax: +1 302 355 4056

DuPont do Brasil, S.A.
Alameda Itapecuru, 506
06454-080 Barueri, SP Brasil
Tel: +55 11 4166 8000
Fax: +55 11 4166 8736

Asia Pacific

DuPont China Holding Co., Ltd.
Shanghai Branch
399 Keyuan Road, Bldg. 11
Zhangjiang Hi-Tech Park
Pudong New District, Shanghai
P.R. china (Postcode: 201203)
Tel: +86 21 3862 2888
Fax: +86 21 3862 2889

Europe/Middle East/Africa

DuPont de Nemours Int'l S.A.
2, Chemin du Pavillon
P.O. Box 50
CH-1218 Le Grand Saconnex
Geneva, Switzerland
Tel: +41 22 717 51 11
Fax: +41 22 717 55 00

www.surlyn.dupont.com

The technical data contained herein are guides to the use of DuPont resins. The advice contained herein is based upon tests and information believed to be reliable, but users should not rely upon it absolutely for specific applications because performance properties will vary with processing conditions. It is given and accepted at user's risk and confirmation of its validity and suitability in particular cases should be obtained independently. The DuPont Company makes no guarantees of results and assumes no obligations or liability in connection with its advice. This publication is not to be taken as a license to operate under, or recommendation to infringe, any patents.

CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see DuPont Medical Caution Statement, H-50102.

DuPont™, the DuPont Oval, the miracles of science™, Surlyn® and Surlyn Reflection Series® are trademarks or registered trademarks of DuPont or its affiliates.

