

DuPont™ 18321S™ Polyurethane Clearcoat

Type

DuPont™ 18321S™ is a high-productivity polyurethane clearcoat.

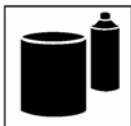
Description

DuPont™ 18321S™ is a clear polyurethane coating designed to deliver excellent appearance and durability for interior cabin surfaces. DuPont 18321S™ delivers exceptional clarity, dry times, sandability, UV-protection, and low overspray.

Recommended Uses

DuPont™ 18321S™ is recommended for use with DuPont™ 18320S™ as part of a wood cabinetry finishing system. This system is designed to provide excellent appearance while reducing overall material usage and labor cost in the production of high-build, mirror-finish wood surfaces.

General Information for Use



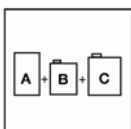
Components

DuPont™ 18321S™ Polyurethane Clearcoat

DuPont™ 18120S™ Urethane Activator

DuPont™ 18122S™ Slow Urethane Activator (optional)

See DuPont™ 18320S™ product data sheet for Filler-Sealer information.

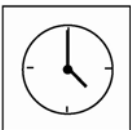


Mix Ratio

Thoroughly mix DuPont™ 18321S™ prior to activation. Filter activated material prior to spray application.

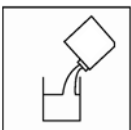
<i>Two Component System</i>	<i>Parts by Volume</i>
DuPont™ 18321S™ Polyurethane Clearcoat	4
DuPont™ 18120S™ / 18122S™ Urethane Activator	1

Viscosity will be 15 - 17 seconds in a Zahn #2 cup.



Pot Life and Induction Time

Pot life is 2 hours at 70°F (21°C).
No induction time is required prior to application.



Additives

None Recommended.

Guidelines for Use



Substrates and Surface Preparation

Surface preparation is critical to final appearance of clearcoat. For wood surfaces, see preparation recommendations provided in the DuPont™ 18320S™ product data sheet.



Gun Setup

DuPont™ 18321S™ can be applied with conventional, HVLP, air-assisted airless, and electrostatic spray equipment using pressure, siphon, or gravity fluid delivery.

Conventional

Pressure Pot
Siphon Feed
Gravity Feed

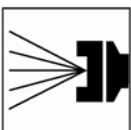
Fluid Tip

1.2mm – 1.6mm (.047" - .063")
1.2mm – 1.6mm (.047" - .063")
1.2mm – 1.6mm (.047" - .063")

HVLP

Pressure Pot
Siphon Feed
Gravity Feed

1.2mm – 1.6mm (.047" - .063")
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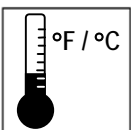


Fluid Delivery

Conventional	10-12 ozs/min
HVLP	10-12 ozs/min

Air Pressure

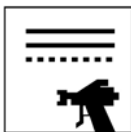
Conventional	50 – 60 psi atomizing air
HVLP	25 – 30 psi atomizing air



Environmental Conditions

Substrate and ambient temperature must be between 50°F (10°C) and 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%. Heating activated paint above 110°F (43°C) may cause gelation.

For optimum appearance spray DuPont™ 18321S™ at 75°F (24°C) or warmer.



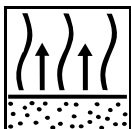
Application

A 3-coat process is recommended for DuPont™ 18321S™ application. Spray the first coat medium wet, with a wet film build of no more than 1.0 mil. Allow the coat to flash 3-5 minutes before the next coat. Repeat with a second and then third coat. Once the 3-coat process is completed, allow the coating to dry for 3 hours at 70°F (or 30 minutes at 120°F). Repeat the 3-coat process (additional 3 coats with 3-5 minute flash in between each coat). After the second 3-coat process is completed, allow the coating to dry for at least 8 hours at 70°F.

Polishing

The coating should be sanded smooth, finishing with 1500 grit or higher. A mirror finish can be obtained using a variable speed buffer (1200 – 1800 rpm) with foam pad and finishing polish. Prior to final buffing/polishing, the DuPont™ 18321S™ application processes may be repeated to increase depth of finish.

Caution: Excessive heat generation during buffing will negatively impact the wood grain appearance.



Dry Times

Force Dry at 120°F (49°C)

Flash Before Force Dry	none required
Dry to Touch	10 minutes (after cool down)
Dry to Sand/Polish	30 minutes

Air Dry at 70°F (21°C)

Flash Between Coats	3 – 5 minutes
Dust Free	10 minutes
Dry to Sand/Polish	3 hours

** Infrared drying is not recommended.*



Recoat

DuPont™ 18321S™ may be recoated with itself after 1 hour if force dried and 2 hours if air dried. If DuPont™ 18321S™ is being recoated after 24 hours, scuff sand with 1200-1500 grit paper.



Cleanup Solvents

DuPont™ 3642S™ Thinner or Nason® 481-16™ Thinner.

Physical Properties

VOC	Less Exempts (LE)	As Packaged (AP)
DuPont™ 18321S™	4.2 lbs/gal	2.9 lbs/gal
Ready-to-Spray DuPont™ 18321S™	4.2 lbs/gal	3.2 lbs/gal
With DuPont™ 18120S™		

Factory-Packaged Clear

Color	Clear
Closed Cup Flash Point	20°F – 73°F
Shelf Life	3 years (Unopened at 50° – 110°F)

Ready-to-Spray

Theoretical Coverage	490 ft ² /gal at 1 mil dry film thickness
Weight Solids	38%
Volume Solids	31%
Gallon Weight	7.7 lbs/gal

Dry Film

Gloss	≥ 90 measured at 60°
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Coating Performance

Chemical and Solvent Resistance	Very Good
Humidity Resistance	Excellent
Acid and Alkali Resistance	Very Good
Abrasion Resistance	Very Good
Weatherability	Excellent
Flexibility	Very Good

Safety and Handling

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Do not allow material or overspray to enter drains or waterways.

E-R 4688/ K-17181
Revised 11/2007