LUSID TECHNOLOGIES

06242013

777-Series

NORTHSTAR™

Super Anti-Sag DTM Urethane Topcoat

Description:

Northstar's 777-series is the next generation of High Solids technology. 777 offers outstanding gloss retention, chemical resistance, and long lasting durability. 777 is a single stage paint system utilizing the Northstar SHS toner system. The 777 provides outstanding coverage and film build when desired.

Suggested Uses:

As a high performance polyurethane topcoat is needed overly properly prepared and primed aluminum, carbon steel, galvanized, concrete or dry wall; or DTM over properly prepared carbon steel where:

- Long term color retention is desired
- Long term gloss retention is required
- Low VOC coatings are mandated
- Excellent chemical resistance is required
- Very good Skydrol® resistance is needed
- Outstanding flexibility is required
- Application by HVLP, Air assisted airless, Airless, brush, or roller is desired

Not recommended for: Immersion service

Field Applications:

777-series can be used in a multitude of end use applications including but not limited to:

- Heavy Industrial Refinishing
- Oil Rig Equipment
- Construction Equipment
- Airport Ground Support Equipment
- Truck and Trailer OEM and Refinish

Components:

• 777-series Color	Base Component
• H87	Activator
• S021 Fast/Medium/Slow	Low VOC Reducers
• S065/075/085	Zero VOC Reducers
• A566	Accelerator
• A544	Pot Life Extender

Mixing Ratios:

Mix **3 Parts 777** series Color to **1 Part H87**

- For Brush or Roller, reduce 10% with S021 Slow or S085.
- For Airless application, no reduction is necessary.
- For Air Assisted Airless, reduce 5-15% with selected reducer.
- For HVLP reduce 25% with selected reducer.

Note: Additional reduction may be required for HVLP. Select appropriate reducer based on air temperature and size of item to be painted.

VOC:

When mixed 3 Parts 777 series color to 1 Part H87, VOC is 2.66 pounds per gallon.
When reduced with S021 Fast/Medium/Slow or S065/075/085, VOC is 2.66 pounds per gallon.
When mixed with 2 fluid ounces of A566 or A544, VOC is 2.72 pounds per gallon.
When mixed with 2 fluid ounces of A566 and A544, VOC is 2.79 pounds per gallon.

Color:

777 series is a full line Northstar intermix system with unlimited color availability. 777 is available in solids and metallic formulations.

Physical Data:

• Solids by Weight	65% (Average)
• Solids by Volume	56% (Average)
• Gloss (60° Angle)	90+
• Pot Life (@77° F)	2 hours

Cure Times (Hours @77° F):

Description	Brush / Roll	Airless	Air-Assist Airless	HVLP
DFT	2-2.5	4-6	3-5	2-3
To Touch	0.5	1	1	0.5
Tack Free	2	2.5	2.5	2
To Handle	4	4	4	4
To Recoat	1	2	2	1
Hard Dry	8	12	12	8
Full Cure	7 days	7 days	7 days	7 days

Use of A566 Accelerator will increase rate of dry by as much as 50%. Do not use accelerator with slow reducers.

Theoretical Coverage:

899 ft² @ 1 mil DFT (100% transfer efficiency)
449 ft² @ 2 mils DFT (100% transfer efficiency)

Material losses during mixing and application (transfer efficiency) should be taken into consideration when estimating job requirements. For example, HVLP has a transfer efficiency rating of 65%. So, theoretical coverage at 1 mil DFT would be 584 ft² utilizing HVLP. Transfer efficiency will vary depending upon object painted and application method.

Application Information

Surface Preparation for Direct to Metal (DTM) Applications:

Make sure that surface to be painted are clean, dry, and free of foreign contamination. 777 should only be applied DTM over carbon steel surfaces. For best results apply over surface prepared in accordance with SSPC-SP6 Near White Sandblast. At minimum, surface should be prepared in accordance with SSPC-SP3 Power Tool cleaning followed by surface cleaner to remove any debris or residue.

Compatibility with Other Coatings:

777 may be applied over the following Lusid Northstar Primers and or Sealers:

- EP210-series
- Fuzion-series
- TNEK
- GTP270
- SP210
- QS210
- QP210
- GTP310

777 may be applied over most aged and cured coatings in good condition. Testing for lifting, bubbling, and adhesion is recommended to assure compatibility with unknown coatings.

Activation:

See Mix Ratio section for proper activation.

Reduction:

See Mix Ratio section for proper reduction.

Maximum Service Temperature:

250-275° F for continuous service depending on color (121-135° C)
300° F in intermittent heat (148° C)

Shelf Life:

2 years from date of manufacture. Store in a well-ventilated area. Storage conditions should be between 35° F (2° C) and 120° F (48° C).

Application Conditions:

Do not apply if the surface temperature of the object to be painted is below 45° F (7° C) or above 110° F (43° C).

Application Equipment:

Contact your Lusid Representative for specific application equipment recommendations.

Performance Properties:

Abrasion and Mechanical	Excellent	Color & Gloss Retention	Excellent
Alkalis	Excellent	Salts	Excellent
Solvents	Excellent*	Weather	Excellent
Acids	Excellent	Humidity	Excellent

(*) Contact Lusid for specific solvent testing properties

ASTM Information:

Test	Results	Test Methods
Abrasion Resistance	Excellent	ASTM D 4060
Adhesion	Excellent	ASTM D 4541 (1850 psi) Excellent ASTM D3359 A/B (5/5) Excellent
Salt Spray Resistance	Excellent	ASTM B 117 (Pass 1500 hours)
Direct Impact Resistance	Very Good	ASTM D 2794 (140 in-lb)
Reverse Impact	Very Good	ASTM D 2794 (50 in-lb)
Humidity Resistance	Excellent	ASTM D 2247 (Pass 1000 hours)
Film Hardness	3H	ASTM D 3363
Chemical Resistance (Rating Scale 1-10 with 10 best)	Excellent 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	ASTM D 1308 1% Sodium Hydroxide 5% Sodium Hydroxide 10% Sodium Hydroxide 10% Ammonia Diesel Fuel 1% Hydrochloric Acid 1% Sulfuric Acid 10% Sulfuric Acid 100% Ethanol 1% Phosphoric Acid 10% Phosphoric Acid MEK (Methyl Ethyl Ketone) Gasoline Skydrol DOT 3 Brake Fluid
QUV A	Excellent	ASTM D 4587 (1500 hours-97%)
Initial Gloss @ 60°	93 min	ASTM D 523
Solvent Resistance	Surpassed	ASTM D4752 (1000 MHR)
Flexibility	Excellent	ASTM D 522 Mandral