PRODUCT MANUFACTURER
LINE-X LLC
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GENERAL PRODUCT DESCRIPTION
LINE-X ULTRA is a low odor, two-component Aliphatic Polyurea spray coating that is UV stable. This product can be used as a topcoat for polyurea and polyurethane systems on properly prepared substrates or as a stand-alone coating. LINE-X ULTRA is 100% solids with zero VOCs (Volatile Organic Compounds) and superior physical properties. LINE-X ULTRA is an environmentally friendly product with excellent color, gloss retention and UV stability.

Suitable applications include:
- Topcoat for truck bedliners
- Topcoat for other LINE-X polyurea products
- Stand-alone coating

LINE-X ULTRA is sold in clear and black. Applicators may purchase pigments in standard colors and custom colors can be formulated upon request.

LINE-X ULTRA A1/ULTRA B1 is packaged in a 10 gallon set. A set is comprised of one (5) gallon of Iso "A" component and one (5) gallon of Resin "B" component.

APPLICATION PROCESSING DATA
As a topcoat, LINE-X ULTRA should be applied as soon as possible over hot or warm LINE-X but no longer than one hour after LINE-X application. Tack free time and full cure time is temperature, humidity and film thickness dependent. Thicker films will take longer to through-cure. High humidity will shorten cure time. In cold, dry conditions, the cure time will be prolonged.

Approximate values only. This data should not be considered a specification and is intended for general information for planning the application process.

APPLICATION GUIDELINES
LINE-X ULTRA is optimally applied at four (4) mils thickness as UV protection over polyurethane/ polyurea coating. Maximum thickness for stand-alone is 20 mils.

Pigment Mixing Instructions
LINE-X ULTRA is sold as clear and can be pigmented. Please note that clear LINE-X ULTRA can only be tinted using ASP pigments sold by LINE-X. For custom color blends for LINE-X ULTRA, please contact your customer order representative.

Pigment Load for All Pigments

B Side Resin Volume	Pigment Load
1.00 gallon (128 oz.)	2.95 lbs.
2.00 gallons (256 oz.)	5.90 lbs.
3.00 gallons (384 oz.)	8.85 lbs.
4.00 gallons (512 oz.)	11.8 lbs.
5.00 gallons (640 oz.)	14.75 lbs.

APPLICATION EQUIPMENT
LINE-X ULTRA is designed to be sprayed through plural component equipment. Equipment must have material heat control capabilities, 1:1 by volume and sprayable with flat tips. Refer to equipment manufacturer for equipment specifics and accessories.

LINE-X ULTRA is tack free in three (3) to six (6) minutes. Prior to application, proper surface preparation is required. Surfaces must be clean, dry and in sound condition. Remove all oil, dust, grease, loose particles and rust.

EQUIPMENT CLEAN UP
Xylene, Methyl Ethyl Ketone (MEK), Acetone, or Brake Clean are acceptable for cleanup of spray equipment, application tools, and for excess product removal.

MATERIAL STORAGE

LINE-X ULTRA has a shelf life of twelve (12) months from manufacture date in factory-sealed containers. LINE-X ULTRA should be stored between 65°F to 80°F (18°C to 27°C) and out of direct sunlight. Do not expose unused materials to high humidity conditions.

Always provide an airtight reseal for unused materials and store away from fire hazards.

SAFETY AND HANDLING

Please refer to Safety Data Sheets (SDS) for safety and handling of this material. All personnel working with this material are expected to read and understand all safety recommendations per SDS. All Personal Protection Equipment must be properly worn to comply with worker health and safety requirements.

CHEMICAL TECHNICAL DATA

Conditions: 77°F and 50% Rel. Humidity	
Mix Ratio by Volume	1A:1B
Gel Time	45 sec.
Tack Free Time	3 to 6 mins.
Recoat Window	1 hour
Return to Service	24 hours
Density "A" Side (lbs/gal)	9.45 ± 0.5
Density "B" Side (lbs/gal)	8.85 ± 0.5
Viscosity "A" Side	200 ± 100 cP
Viscosity "B" Side	100 ± 50 cP

BASIC PHYSICAL PROPERTIES

Test Name	Test Method	Value
Chip Resistance	ASTM D3170	Chip Rating 10 No Failures
Elongation	ASTM D412	120%
Gloss Retention	ASTM D523	81+
Hardness, Shore D	ASTM D2240	54D
QUV Topcoat	ASTM G154	Delta E <2.0 @ 3000 hrs
Tensile Strength	ASTM D412	2100
Taber Abrasion	ASTM D4060	12.31 (mg loss/1000 cycles)

CHEMICAL RESISTANCE

ASTM D1308 – 24 Hour Spot Test Under Watch-Glass at 77°F

Chemical Name	Rating
Acetic Acid 10%	3
Ammonium Hydroxide 28-30%	1
Bleach	1
Brake Fluid .3	NR
Calcium Chloride 50%	1
Citric Acid 10%	4
Diesel	1
Distilled Water	4
Floor Cleaner (Diversoy)	1
Gasoline	4
Hydrochloric Acid 36.5-38%	4
Isopropyl Alcohol	4
Lactic Acid 45%	4
Phosphoric Acid 50%	4
Pot & Pan Detergent (Manual)	1
Potassium Hydroxide 50%	1
Simple Green	4
Sodium Chloride 30% (w/v)	1
Sodium Hydroxide 10% (w/v)	3
Sodium Hydroxide 50%	1
Sulfuric Acid 10% (v/v)	3
Sulfuric Acid 25% (v/v)	1
Sulfuric Acid 95-98%	NR
Toluene	4
Vinegar 100% Strength	3, 5
Windshield Cleaner (Xtreme Blue)	4

Rating System:
1 No visible damage
2 Little visible damage
3 Softening
4 Swelling and softening
5 Discoloration
NR Not recommended

PROJECT SPECIFIC APPLICATIONS

The following application details provide general guidelines for LINE-X ULTRA applications. All applications require proper surface preparation including the removal of all oil, dust, grease, loose particles and rust. Apply at 2-4 mils wet film thickness per coat for topcoat. Maximum thickness for stand-alone is 20 mils.

Spray Applications over LINE-X

Both the Iso "A" Side and Resin "B" Side need to be heated to 160°F (71°C). LINE-X ULTRA should be sprayed at 2,000 psi through a Fusion AP gun with an AF2929 mix chamber and a F0624 flat tip. LINE-X ULTRA should be applied as soon as possible while the coating is warm (no later than 1 hour after LINE-X application).

Spray Over Aluminum or Galvanized Steel

- SSPC 10: 2 to 3 mil surface profile depth
- Prime with FCP or XPM

Spray Over Fiberglass

- Sand using a 40-80 grit sandpaper
- Prime with FCP or XPM

Please contact your LINE-X technical team for any questions regarding LINE-X ULTRA applications not referenced here.

PRODUCT USER RESPONSIBILITIES

Users of LINE-X ULTRA product are responsible for reading the general guidelines, product data sheets, specifications and Safety Data Sheets (SDS) before using this material. Printed technical data and instructions are subject to change without notices. Contact your local LINE-X representative or visit our website www.LINE-X.com for current technical data instructions.

PRODUCT DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation. User assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones that may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and LINE-X makes no claim that these tests or any other tests accurately represent all environments.