



LINE-X® ASPART-X ASP

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PRODUCT MANUFACTURER

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GENERAL PRODUCT DESCRIPTION

ASPART-X is a low odor, two-component aliphatic polyurea coating for flooring applications on properly prepared substrates. ASPART-X is 100% solids with zero VOCs (Volatile Organic Compounds). ASPART-X is an environmentally friendly product with excellent color and gloss retention and UV stability.

Suitable applications include:

- Garage floors
- Light commercial flooring
- Porches
- Deck coatings over LINE-X

ASPART-X is sold clear and in popular pre-pigmented sets. Applicators may purchase pigments in standard colors, and custom colors can be formulated upon request.

Topcoats can be supplemented with slip-resistance additives and a matte reducer for gloss reduction. There are four different grades of slip-resistance available in grits of NS-20, NS-50, NS-75 and NS-100. The NS-20 is the coarsest grit.

ASPART-X ASP A1/B1 is packaged in a 2-gallon set. One set is comprised of one gallon of the "A" component and one gallon of the "B" component.

APPLICATION GUIDELINES

ASPART-X flooring is designed to be a squeegee and rolled application. 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. Product is optimally applied between 4 mils to 8 mils wet film thickness.

Please see coverage table below for 100% solids with no solvents:

FIELD COVERAGE GUIDELINES

Field coverage guidelines at 100% solids are based on actual data collected in the field over one year and includes all waste. Waste includes material left in rollers, roller pans, mixing cups, brushes, product cans and results of over-mixing. ASPART-X flooring projects can include up to six to eight (6-8) 18" rollers, six (6) 4" rollers, and six (6) 2" brushes. Each 18" roller can hold over 1 pound of product waste.

ACTUAL FIELD COVERAGE

THICKNESS (MILS)	SQ. FT. PER 1 GALLON SET
1	900 - 1,050 sq. ft.
3	300 - 350 sq. ft.
6	150 - 175 sq. ft.

THEORETICAL COVERAGE

(Does not include waste)

THICKNESS (MILS)	SQ. FT. PER 1 GALLON SET
1	1,600 sq. ft.
3	533 sq. ft.
6	267 sq. ft.

The above conditions are approximate calculations for a troweled concrete floor finished to CSP-2 to CSP-3 profile. The substrate conditions for the base coat will vary greatly depending on the condition of the concrete. For more porous concrete, higher than CSP-2 to CSP-3 values, plan up to 50% more product for the base coat.

MIXING INSTRUCTIONS

This is a two-component system. ASPART-X A and B side components should be well mixed independently using separate paint stirrers for a minimum of 60 seconds prior to blending. For clear coats, combine equal parts of ASPART-X A and B components by volume. Use care when mixing to avoid incorporation of air. The mixing process should not be less than 60 seconds or more than 90 seconds. Mix only the volume that can be used within the work time of the product (i.e., 20 to 25 minutes at 75°F and 50% relative humidity).



PIGMENT MIXING INSTRUCTIONS

If the clear ASPART-X is to be tinted a color, please see the following table guidelines for the amount of pigment color to add to the B Side resin. Please note that you must determine if you will be adding solvent to the combined A and B mixture prior to determining the amount of pigment to add.

NOTE: The B side resin must be tinted prior to combining with the A side component.

PIGMENT LOAD FOR ALL PIGMENTS ENGLISH SYSTEM

B SIDE RESIN VOLUME	PIGMENT LOAD
0.25 GAL (32 OZ)	.71 LB
0.50 GAL (64 OZ)	1.42 LB
1.00 GAL (128 OZ)	2.84 LB

SOLVENT MIXING INSTRUCTIONS

If necessary, ASPART-X ASP may be thinned using Xylene ONLY. It should be noted that adding Xylene will add a VOC to the product and should only be used in well-ventilated areas.

Below are conditions and recommended solvent additions:

RELATIVE HUMIDITY	SOLVENT
< 50%	0%
50% TO 70%	10%
> 70%	15%

IMPORTANT: Under no conditions should solvent be added to an amount greater than 20% of the volume. Solvent is added to the total volume of the A and B component mixture. ASPART-X A and B sides should be mixed together thoroughly prior to adding Xylene solvent.

TOOLS

Product may be applied using an un-notched squeegee, phenolic rollers with a 3/8" nap and natural fiber brushes in 2" width.

Use Xylene or MEK to wash brushes, rollers, spray guns & pumps and other painting tools.

EQUIPMENT CLEAN UP

Xylene, Methyl Ethyl Ketone (MEK) and Acetone (Brake Parts Cleaner) are acceptable for clean up and product removal.

MATERIAL STORAGE

ASPART-X has a shelf-life of twelve (12) months from manufacture data in factory sealed containers. ASPART-X 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 including respirators must be properly worn to comply with worker health and safety requirements.

CHEMICAL TECHNICAL DATA

Conditions: 75°F and 50% Rel. Humidity	
Mix Ratio by Volume	1A:1B
Pot Life	30 to 45 minutes
Time to Gel in Pot	20 minutes
Work Time on Floor	25 minutes
Tack Free Time	1 to 2 hours
Recoat Window over ASPART-X	1 to 18 hours
Full Cure Time	24 hours
Density "A" Side	9.73 lbs/gal
Density "B" Side	8.56 lbs/gal
Viscosity "A" Side	130 ± 75 cP
Viscosity "B" Side	450 ± 100 cP

Tack free time and full cure time is temperature, humidity and film thickness dependent. Thicker films will take longer to cure throughout. High humidity will shorten cure time. In cold, dry conditions the cure time will be significantly



prolonged. Allow at least 2 to 3 hours before light foot traffic and 24 hours before return to service.

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

BASIC PHYSICAL PROPERTIES

TEST NAME	TEST METHOD	VALUE
Adhesion	ASTM D4541	541 psi (concrete failure)
Elongation	ASTM D412	80%
Flexibility (1/8 Mandrel)	ASTM D522	Pass No cracking
Gloss Retention	ASTM D523	81+
Hardness, Shore D	ASTM D2240	46 ± 2
Impact Resistance	ASTM D2794	32 in lbs
QUV Topcoat	ASTM G154	Delta E <2.0 @ 1,700 hrs.
Taber Abrasion	ASTM D4060	30.5 mg loss
Tensile Strength	ASTM D412	800 to 900 psi
Safe Walking Surfaces	ASTM F1637.95	Pass
Surface Resistivity	ASTM D257	>1.0 x 10 ¹⁶ Ω square
Volume Resistivity	ASTM D257	1.4 x 10 ¹⁴ Ω-cm
Water Vapor Trans. (Avg. coating thickness of 11.5 mils)	ASTM E96	0.223 grains/ft ² /hr

ADDITIONAL PRODUCT CERTIFICATIONS

Complies with FDA and USDA Coating Regulations for Incidental Food Contact Applications (Keller and Heckman LLP Letter of Opinion)

CHEMICAL RESISTANCE PROPERTIES

ASPART-X materials were immersed in the chemicals below for a period of seven (7) days. Recommendation of "yes" indicates that the material met chemical resistance properties for ASTM D543 standard.

CHEMICAL NAME	RECOMMENDATION
AUTOMOTIVE OIL	YES
BLEACH (CHLORIDE) 6%	YES
BRAKE FLUID (DOT 3)	YES
CALCIUM CHLORIDE 50%	YES
DIESEL FUEL	YES
ETHYLENE GLYCOL	YES
HYDRAULIC FLUID (OIL)	YES
KEROSENE	YES
MINERAL SPIRITS	YES
POTASSIUM HYDROXIDE 50%	YES
SODIUM CHLORIDE 30%	YES
SODIUM HYDROXIDE 50%	YES
WATER (H2O)	YES

PROJECT SPECIFIC APPLICATIONS

The following application details provide general guidelines for concrete flooring applications. All applications require proper surface preparation.

MOISTURE EMISSION

Applying ASPART-X to wet or humid concrete can lead to blistering and/or delamination of the coating. Concrete moisture content can vary widely depending on work-site conditions. In general, coating work on concrete slabs should be done when the concrete is dry and at maximum surface temperature. Please note that this product cannot be applied at the dew point as condensation on the concrete substrate will prevent adhesion of ASPART-X.

A moisture test is required to determine the suitability of a concrete surface for an ASPART-X flooring application. Applicators should take a moisture percentage content reading using a Tramex Moisture Meter. If the moisture reading is above 4% at the time of quotation or at the time of planned installation, a Relative Humidity Test is required (ASTM Standard F2170-11). The Relative Humidity must not exceed 85%. If you encounter a situation with a Relative Humidity higher than this value, please contact your LINE-X technical team for guidance.

Additionally, the pH of the concrete surface should not be above 9.0.



CONCRETE SURFACES

Concrete surfaces require grinding or shot blasting in accordance to ICRI standard CSP-2 to CSP-3 prior to coating application. ASPART-X cannot be applied to concrete that is less than 28 days old.

SUBSTRATE REPAIR

Minor cracks and holes above 1/8" in diameter should be repaired using MEND-X by LINE-X prior to ASPART-X application.

GENERAL GUIDELINES FOR COLOR CHIP FLOORING

Color chips are used in conjunction with ASPART-X to create an attractive and durable floor coating. There are four standard chip color combinations available: Golden Road, Pebble Blue, Tuxedo, and Sandstone. Custom chip blends can be ordered through your order representative.

Below are general guidelines for a basic chip floor:

STEP 1 - BASE COAT

- Apply clear ASPART-X at approximately 300 to 350 square feet per gallon at 3 mils thickness to provide a uniform base.
- Allow surface to dry to tack free (approx. 1-2 hours).

STEP 2 - TACK COAT

- Apply a second pigmented tack coat of ASPART-X at approximately 325 to 350 square feet per gallon at 3 mils thickness.
- Broadcast color chips uniformly to surface. Chip coverage is approximately 300 square feet per 50 lb. box.
- Allow surface to cure approximately 1-2 hours prior to application of top coat.

STEP 3 - TOP COAT

- Apply a single clear coat of ASPART-X ASP at approximately 150 square feet per gallon at 6 mils thickness or two topcoats applied at 3 mils thickness.

- Apply additional coats only if a very smooth surface is desired per client's request and is included in the customer quotation.

OPTIONAL TOP COAT ADDITIVE - SLIP-RESISTANCE

If additional slip resistance is required, the topcoat can be supplemented with slip-resistance additives (NS-20, 50, 75 and 100). NS-100 is recommended for most flooring applications. It provides adequate traction and an easy to clean surface. The desired slip-resistance additive should be added to the ASPART-X ASP-B1 Resin component and thoroughly blended prior to mixing with the ISO. Apply at a maximum wet film thickness of 4 mils for best results. If wet film thickness is too high the slip-resistance effect will be lost and surface appearance will not be uniform. If higher film build is required apply multiple thin coats for best performance and uniform appearance.

OPTIONAL TOP COAT ADDITIVE - MATTE REDUCER

If less gloss is desired from the standard topcoat application, a matte reducer can be added. The matte reducer is added to the already mixed A and B side components.

PRODUCT USER RESPONSIBILITIES

Users of the LINE-X ASPART-X 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 notice. 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 and 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.