



Technical Data

PolySpar LP1

Aliphatic / Polyaspartic / Color Stable

NB 1288

Revised: 041610

MANUFACTURER

GatorHyde Protective Coatings, Inc.
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PRODUCT DESCRIPTION:

PolySpar LP1 is a 100% solids, aliphatic polyaspartic coating based on new polyurea technology. **PolySpar LP1** displays virtually no odors (mild mint smell) and is very moisture insensitive. This product has been specifically formulated to be used as a protective coating for steel, wood, urethane foam, concrete, concrete block, brick and other types of masonry surfaces. **PolySpar LP1** is extremely color stable with high gloss and displays excellent UV weathering characteristics. The product can be applied in temperatures ranging from 0°F to 200°F. When fully cured, **PolySpar LP1** will produce a highly abrasion resistant, high-gloss, smooth finish or can be lightly textured for additional aesthetic appeal. As a topcoat, **PolySpar LP1** will provide added UV protection and durability to numerous aromatic coating systems.

PRODUCT USES:

PolySpar LP1 adheres well to several substrates including concrete, steel, wood, and plastic. The high tensile strength of the coating allows this product to better withstand the abuse especially on vertical wall surfaces. The excellent chemical resistance is well suited for various harsh applications. Some typical installations include:

- Industrial Warehouses
- Food Processing Areas
- Plywood Coating
- Pulp and Paper Mills
- Chemical Plants
- Fertilizer Plants
- Off Shore Piping
- Furniture Manufacturing
- Canning and Bottling Industry

APPLICATION TECHNIQUES:

PolySpar LP1 B-side should be thoroughly mixed before applying. The material should be sprayed in even, thin film coats. Several applications may be necessary in order to obtain the specified dry film thickness. The material should be applied in 5-10 mil coats for maximum efficiency and air release.

AVAILABLE COLORS:

- White
- Clear
- Custom tinting on request

ADVANTAGES:

- FAST CURE
- 100% SOLIDS
- LITTLE MOISTURE SENSITIVITY
- HIGH TENSILE STRENGTH
- COLOR STABLE
- ADHERES WELL TO SEVERAL SUBSTRATES
- VIRTUALLY NO ODOR
- DISPLAYS EXCELLENT UV RESISTANCE
- AVAILABLE IN SEVERAL COLORS
- CURES FROM 0°F to 200°F
- HIGH GLOSS FINISH
- USDA ACCEPTABLE-MEETS FSIS DIRECTIVE

PHYSICAL PROPERTIES:

Tensile Strength	ASTM D-412	Failure, psi	3509
Elongation	ASTM D-412	%	30
Tear Strength Die C	ASTM D-624	pli	518
Hardness	ASTM-D2240	Shore D	73
Hardness	ASTM D2240	Shore A	99
Flash Point	Pensky/Martin	°F	>200
Taber® Abrasion (1KG, 1000 revs)	ASTM-D4060	mg loss, CS-17	TBA
IZOD® IMP RESIST.	ASTM D256-56	ft/lbs./In	TBA
% Solids (weight)	Calculated	%	100
VOC Content	Calculated	lbs./gal	0.00
Gloss	ASTM D-523 60° spec.	Gloss	TBA
Impact	ASTM D-2794	direct, reverse	TBA
Viscosity A- Side			1100 cps
Viscosity B-Side			200 cps

Processing Properties (10 mils) (75°F) (54%RH)

Gel time (200 gram mass)	45 Seconds
Tack Free Time	75 seconds
Volume Ratio (A:B)	2:3
Weight Ratio (A:B)	58:100
Open to Foot Traffic	<6 Hours
Open to Industrial Traffic	18 Hours

INSTALLATION RECOMENDATIONS:

PolySpar LP1 adheres well to several sound substrates including concrete, steel, and wood. All surfaces should be free of loose particles, grease, oil, unsound material, dust and dirt. **LP1** can be applied by using a plural component, high pressure spray pump system such as the GRACO E-10, E-XP1 or E-XP2. The product must be installed by an approved applicator familiar with the material and delivery system.

Concrete:

Old Concrete- Sand-blasting, shot-blasting or water-blasting is recommended to remove surface contaminates. Any oils or fats must be removed prior to application. Acid etching may be required (followed by thorough rinsing) to open the pores of the concrete to accept a primer coat. For applying this product over an existing coating or paint see manufacturer for specifications on primer, preparation and installation procedure. Do not apply **PolySpar LP1** to wet substrates. Contact the manufacturer for primer recommendations in wet applications. It is recommended a primer be used prior to application of **PolySpar LP1**. A 10-15 mil coat per application of **PolySpar LP1** is generally recommended depending on chemical resistance and abrasion issues.

New Concrete- The concrete should be allowed to cure for a minimum of 30 to 60 days. Acid-etching (15% muriatic/ 85% H₂O) is required to remove the surface laitance that appeared during the curing process. A primer must be applied (contact the manufacturer for specific recommendations). A 15-mil coat of **PolySpar LP1** is generally recommended depending on chemical resistance and abrasion issues. The pH should be neutralized prior to installation.

Steel- The steel must be prepared to a "near white metal" equivalent to SSPC 10 or NACE 2. For immersion service, a 3 mil blast profile is recommended. A 2 mil blast profile is generally acceptable. A 5-10 mil coat of polyurea is generally recommended.

Substrate Repairs- All spalls and cracks should be repaired to ICRI standards. Expansion joints should be honored. Horizontal control joints can be filled with ElastoFast 90, manufactured by GatorHyde.

MIXING INSTRUCTIONS:

Thoroughly mix B-Side using a "Jiffy Mixer" for one minute or until consistent color is attained before filling B-side container on the pump.

APPLICATION NOTES:

► On steel surfaces, air blow of dust prior to installing **LPI**.

Primers:

► For applications on metal surfaces use IsoPrime II and on other surfaces such as concrete or wood surfaces use PoxyPrime H₂O. (See manufacturer for further information concerning primers.)

CLEAN-UP/DISPOSAL:

Cured product may be disposed of without restriction. The un-cured isocyanate and resin portions should be mixed together and disposed of in a normal manner. "Drip free" containers should be disposed of according to local, state, and federal laws.

SAFETY & HANDLING:

MSDS will be mailed immediately upon receipt of a purchase order or upon request. All personnel should read and understand the safety recommendations. All body parts should be covered and respirators are required for safe application of this product. Keep uncured product away from children at all times.

LIMITATIONS:

The chemical resistance chart should be consulted prior to any application. This coating displays good abrasion resistance and good physical properties, however it can still be cut. Proper precautions should be taken to eliminate sharp objects from "slicing" the coating.

SHELF LIFE & STORAGE:

Six months to one year in factory delivered, unopened containers. Keep away from extreme heat, freezing and moisture.

PACKAGING:

PolySpar LP1 is available in 25 gallon kits; 10 gallons of A-side and 15 gallons of B-side or 55 gallon drums.

SHIPPING INFORMATION:

PolySpar LP1 can be shipped via most commercial truck lines. The shipping class is "55". The "A" and "B" sides are unregulated.

Adhesion Results:**ASTM D-4541 PATTI Tester (F2 Head)**

Concrete Patio Block (no primer)	350 psi
-concrete failure- 1/32nd " concrete on dolly	
Concrete Patio Block (IsoPrime primer)	450 psi
-concrete failure- 1/8" concrete on dolly	
Concrete Patio Block (100% solids epoxy)	450 psi
-concrete failure 1/16th " concrete on dolly	
Steel (No Primer)	>1000 psi
-adhesive failure	
Wood (No Primer)	250 psi
-delamination	

Chemical Resistance:**ASTM D3912 Mod. 24 Hour Immersion**

Chemical	Result (25°C)
Acetic Acid (100%)	C
Acetone	NR
Ammonium Hydroxide (20%)	R
Anti-freeze/Water (50:50)	RC
Battery Acid (Sulfuric Acid)	RC
Brine-Saturated (310g/l)	R
Citric Acid	RC
Clorox® (10%)/Water	RC, Dis
Copper Chromate Arsenic (4%)	R
Diesel Fuel	R
Gasoline	R
Gasoline/5% MTBE	RC
Gasoline/5% Methanol	R
MEK	NR
Methanol	C
Methylene Chloride	NR
Mineral Spirits	R
Motor Oil	R
Muriatic Acid (10%)	NR
NaCl/Water (10%)	R
Phosphoric Acid (10%)	R
Potassium Hydroxide (10%)	R
Potassium Hydroxide (20%)	R, Dis
Skydrol®	RC
Sodium Hydroxide (50%)	R
Sodium Hypochlorite (10%)	RC
Sodium Bicarbonate	R
Sugar/Water (10%)	R
Sulfuric Acid (50%)	NR
Toluene	RC
Vinegar (5%)/Water	C
Water	R
Water (82°C) 14Day	RC
Xylene	RC

R= Recommend = Little or no Visible Damage

RC or C= Recommend Conditional = Some Effect-Swelling, Discoloration, Cracking,-Wash Down Within One Hour of Spillage to Avoid Effects

NR= Not Recommended

Dis= Discoloration Only

Coverage Rates:

<u>Coating Thickness</u>	<u>Sq. Ft./Gal</u>
3 mils	508
5 mils	305
10 mils	155
15 mils	102
20 mils	77
50 mils (multiple coats)	31
100 mils (multiple coats)	16
250 mils (multiple coats)	6.5

All calculations are **(approximate)** coverage rates.

WARRANTY:

The technical data and any other printed information furnished by GatorHyde are true and accurate to the best of our knowledge. **PolySpar LP1** conforms to in-house quality control procedures and should be considered free of defects. Due to the wide range of applications of this product, it is impossible to assume responsibility for any errors in regard to application, coverage, workmanship, over-spray, or injuries resulting from the use of this product. Liability, if any, for this product will be in the form of replacement materials. The possibility exists to warrant this product on a specific application basis under specific written application instructions from GatorHyde

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