



# Product Data Sheet

POLYARTIC5000LO-PDS-04072026

POLYARTIC

## 5000<sup>LO</sup>™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

**DESCRIPTION:** Smith's Polyaspartic 5000<sup>LO</sup> is a High Performance, Low Odor, High Solids, 2-Component, Aliphatic Polyaspartic with a gloss finish & a 25 minute working time at 72°F / 50% Humidity. This product yields a U.V. stable, hard, resilient film with good chemical resistant properties.

Smith's Polyaspartic 5000<sup>LO</sup> may be used for a variety of applications to include body coats & wear surfaces for commercial, industrial, or residential traffic environments, such as a high build topcoat over Metallic & Luster floors (>8 mils WFT) or as the body coat mixed with metallic; as a body coat or grout coat for [Vinyl Chip](#) & [Color Quartz](#) systems; as a pigmented grout coat over solid color [Cementitious Polyurethane Resurfacers](#) in food processing/production environments, etc., where lower odor, good chemical resistance, durability & color stability is required.

### RECOMMENDED USES:

- Institutional, Retail, Commercial & Residential Environments
- High Build, High Gloss Topcoat for Metallic & Luster (>8 mils)
- Food & Beverage Floors
- Schools & Universities
  - Locker Rooms ◦ Shower Stalls ◦ Corridors / Hallways ◦ more
- Museums
- Pharmaceutical
  - Laboratories ◦ Production Areas ◦ Break Rooms ◦ Restrooms

### HIGHLIGHTS:

- For Interior & Exterior<sup>1</sup> Use
- Next day return to service - Forklift traffic after 24 to 44 hours<sup>2</sup>
- Highly Durable
- Good Working Time
- Easy to Clean
- Resistant to Hot Tire Pickup
- Hot Liquid Spill Tolerant to 230°F (121°C) when applied over a thermal shock resistant coating system, such as [Smith's CPR](#) or similar
- Meets flooring standards for USDA (indirect food contact) & FDA inspection ready

### STORAGE:

Indoors between 40°F (4.4°C) to 90°F (32.2°C)

### SUBSTRATE SURFACE TEMPERATURE:

45°F (7.2°C) to 86°F (30°C) with 25% to 80% Ambient Humidity  
*\*Although Polyaspartic products cure properly below the recommended installation temperature range, the viscosity will be much thicker & working properties may not be desirable for the system; NOT Recommended below:*

- below 65°F (18.3°C) over smooth surfaces as <8 mil smooth topcoat
- below 55°F (12.8°C) over Quartz or Vinyl Chip full broadcast floors

### SHELF LIFE:

12 Months in original, unopened containers;  
Use within 30 days of opening



### KIT SIZES:

- Polyaspartic 5000<sup>LO</sup>** Brush / Roller application
- SCS-ASP5000-192kit Gloss, 1.5 Gallon Kit
- SCS-ASP5000-1920kit Gloss, 15 Gallon Kit

### COLOR:

Clear; Optional colors sold separately



### CURE TIMES: \*Higher temperatures & humidity will shorten pot-life.

Temperature @ 50% Humidity	55°F (12.8°C)	72°F (22.2C)	85°F (30°C)
<b>Pot-life</b>	50 min.	30 min.	20 min.
<b>Working Time</b>	8 mils = 30 min. 20 mils = 35 min.	8 mils = 20 min. 20 mils = 25 min.	8 mils = 15 min. 20 mils = 20 min.
<b>Tack Free</b>	8 mils = 8½ hrs. 20 mils = 11 hrs.	8 mils = 4½ hrs. 20 mils = 6 hrs.	8 mils = 4½ hrs. 20 mils = 6 hrs.
<b>Recoat Window (Sand after max.)</b>	8 mils = 16 hrs. 20 mils = 22 hrs. Max = ≤28 hrs.	8 mils = 11 hrs. 20 mils = 14 hrs. Max = ≤24 hrs.	8 mils = 9 hrs. 20 mils = 12 hrs. Max = ≤18 hrs.
<b>Foot Traffic</b>	8 mils = ≤30 hrs. 20 mils = ≤32 hrs.	8 mils = ≤22 hrs. 20 mils = ≤24 hrs.	8 mils = ≤18 hrs. 20 mils = ≤20 hrs.
<b>Heavy Traffic<sup>2</sup> (Vehicular/Forklift)</b>	8 mils = 40 hrs. 20 mils = 44 hrs.	8 mils = 30 hrs. 20 mils = 32 hrs.	8 mils = 24 hrs. 20 mils = 28 hrs.
<b>Max. Chemical Resistance</b>	6 to 7 days	3 to 4 days	±3 days

### CURED COATING PROPERTIES (DRY FILM):

Property	Test Method	Results
<b>Abrasion Resistance, mg/loss*</b> Taber Abraser	ASTM D4060	76 mg loss (0.076 gram loss)
<b>Hardness (Pencil)</b>	ASTM D3363	2H
<b>Hardness (Shore D)</b>	ASTM D2240	60
<b>Adhesion to Concrete</b>	ASTM D4541	Concrete Fails
<b>Adhesion to Steel - Pull Strength, psi (MPa)</b>	ASTM D4541	≥3,000 psi (≥20.68 MPa)
<b>1/8" Cylindrical Mandrel Elongation</b>	ASTM D522	Pass
<b>Gloss 60°</b>	ASTM E1477	≥90 Gloss
<b>Viscosity (Mixed)</b>	ASTM D2196	350 to 380 cP
<b>VOC's</b>	ASTM D3960	127 g/L
<b>Solids Content (Mixed)</b>	ASTM D2196	86% by weight
<b>Mix Ratio by Volume</b>		2A to 1B

\*CS-17 Taber Abrasion Wheel, 1,000 gram load, 1,000 revolutions Results are based on conditions at 77°F (25°C), 50% relative humidity.

### APPROXIMATE COVERAGE:

Coverage varies due to application thickness, floor profile and absorbency of concrete  
A one gallon mixture of Smith's Polyaspartic 5000<sup>LO</sup> will cover:  
Coverage Equation: 1604 ÷ mils = Wet Film Thickness x 0.86 = Dry Film Thickness

Mil Thickness WFT (DFT)	Yield per mixed gallon
8 mils WFT (6.88 mils DFT)	200 sq.ft./gal
10 mils WFT (8.6 mils DFT)	160 sq.ft./gal
12 mils WFT (10.32 mils DFT)	133 sq.ft./gal
15 mils WFT (12.9 mils DFT)	106 sq.ft./gal
18 mils WFT (15.48 mils DFT)	89 sq.ft./gal
20 mils WFT (17.2 mils DFT)	80 sq.ft./gal



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# Product Data Sheet

POLYASPARTIC

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## 5000<sup>LO</sup>™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

### Typical Chemical & Stain Resistance

ASTM D 1308 Test Method 3.1.1.3 Covered Spot Test of a 5 mil pigmented film after a 7 day cure prior to testing. Results are based on 24 hours covered exposure

E - Excellent; G - Good (slight sign of exposure/stains, coating recovers); NR - Not Recommended (Permanent Damage)

ACIDS	24 hour Exposure
Acetic Acid 25% (Vinegar)	G (slight sign of exposure)
Citric Acid 10%	E
Lactic Acid 88% (Milk)	G
Phosphoric Acid 85%	G
Sulfuric Acid 25% (Battery Acid)	E
Sulfuric Acid 98%	NR (Destroyed Film)
Hydrochloric Acid 32% (Muriatic)	E
Nitric Acid 50%	NR (Stains / Softens / Swells)
Uric Acid	G (Stains)

BASES	24 hour Exposure
Ammonium Hydroxide 10%	E
EBGE	E
Sodium Chloride 20%	E
Sodium Hydroxide 50%	E
Sodium Hypochlorite (Bleach)	E
Trisodium Phosphate 10%	E

ALCOHOLS	24 hour Exposure
Ethylene Glycol (Antifreeze)	E
Hand Sanitizer	G (slight sign of exposure)
Isopropyl Alcohol 91%	G (slight sign of exposure)
Methanol	G (slight sign of exposure)

SOLVENTS	24 hour Exposure
Acetone	E
d-Limonene	E
MEK	G (slight sign of exposure)
Mineral Spirits	E
PGMEA	G (slight sign of exposure)

HYDROCARBONS	24 hour Exposure
Brake Fluid	G (slight sign of exposure)
Hydraulic Fluid	E
Kerosene	E
Motor Oil (SAE 30)	E
Transmission Fluid	E
Skydrol® - LD-4	G (Etch / Stains)

MISCELLANEOUS	24 hour Exposure
Coffee	E
Coke	E
Dish Detergent (Dawn®)	E
Hydrogen Peroxide 3%	E
Ketchup	E
Monster Energy® Drink	E
Mustard	E
Povidone-iodine (BETADINE®)	G (slight sign of exposure)
Tide® 1%	E
Windex® (Ammonia Based)	E
Wine - Red	E

### LIMITATIONS:

- AVOID applying while humidity is greater than 80% during installation
- HEAVY TEXTURE SURFACES – Use a 1/2" to 3/4" nap roller cover when applying over heavy texture surfaces, such as knockdown overlays or heavy stamped patterns, while ensuring no puddling remain
- U.V. Stable refers to Smith's Polyaspartic 5000<sup>LO</sup> only
  - A clear film does not protect underlying non-U.V. Stable layers from damage nor discoloration from light exposure
- As best practice, apply a thin primer coat (@ 5 to 7 mils / 230 to 320 sq.ft. per gallon) when installing directly to bare to avoid air bubbles from becoming trapped in the coating film while curing
- If topcoating with *Smith's CRU-86* or *Smith's MCU-60* is desired, scuff to dull the surface of Smith's Polyaspartic 5000<sup>LO</sup> to help lower the surface tension otherwise the topcoat may crawl or dimple the finish
- DO NOT PUDDLE – Maximum single layer thickness wet should not exceed 80 sq.ft. per gallon (20 mils WFT) to avoid solvent entrapment / fogging / foaming
  - May be applied in multiple layers to achieve a thicker film if desired
- May develop an orange peel like finish texture when applied <8 mils WFT
- DO NOT INSTALL when the Dew point is within ±5° of the temperature

### PRECAUTIONS / WARNING:

Contains Solvent - Material is Flammable

- Keep away from sparks, heat & open flame - Extinguish all flames, pilot lights & electric motors until all vapors are gone & the coating is hard
- Use with adequate ventilation when mixing, applying & curing
- DO NOT SPRAY - Product may emit harmful solvent & isocyanate vapors when spray applied which can cause respiratory irritation. Individuals with chronic lung or breathing problems or negative reaction to isocyanates, should not use this product



**TEMPERATURE & HUMIDITY:** Substrate temperature & materials must be maintained between 45°F (7.2°C) to 86°F (30°C) with 25% to 80% Ambient Humidity for 24 hours prior to & 24 hours after installation. **\*Do Not Install coatings when the Dew point is within ±5° of the ambient (air) temperature.**

### MOISTURE TESTING OF CONCRETE:

#### Interior Concrete Moisture Vapor & Alkalinity Testing –

Concrete moisture vapor testing is highly recommended prior to application of this product over interior concrete to attain long term adhesion as well as help to indicate other potential risks such as contaminants, etc. that may pose a risk for delamination, chemical attack, etc. that may not be caused by moisture vapor emissions or high alkalinity.

Maximum interior moisture readings are as follows:

- ASTM F2659 <4% MC (used to determine placement of below test locations)
- ASTM F1869 <3 lbs. / 1,000 sq.ft. / 24 hours with 9 to 12 pH
- ASTM F2170 <75% Relative Humidity
- ASTM F3441 9 to 12 pH using a pH Pen with Distilled Water

\*Additional testing & treatment may be necessary below 8.5 or greater than 12 pH

Visit [www.astm.org](http://www.astm.org) to purchase the test methods. Interior environments require an acclimated environment for the results to be valid & conclusive.

Testing pH levels with a pH pencil or Litmus paper along with distilled water is a very inexpensive, easy way of identifying a potential risk, in conjunction with Moisture Vapor testing methods to determine whether more in-depth testing should occur.

*Smith's Epoxy MAC100, Smith's Epoxy MAC125, Smith's Epoxy VCB<sup>38</sup> or Smith's Epoxy VCB<sup>46P</sup>*, in conjunction with proper testing & mechanical preparation, can suppress the moisture vapor emission rate to a level within the tolerance of subsequent coatings & traditional floor covering needs.

Smith Paint Products is a product manufacturer which does NOT offer any testing or analysis but may be able to offer guidance to an appropriate testing lab or third-party inspector. When in doubt, hire a qualified third-party testing firm with appropriate certifications & credentials.

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### PERSONAL PROTECTION EQUIPMENT RECOMMENDED:

- Use of a self-contained respiratory equipment (TC 19C NIOSH/MESA) - Avoid inhaling atomized spray & fumes
- Wear Chemical Resistant Gloves - Avoid all contact with skin
- Wear Chemical Resistant Eye Protection - Prevent contact with eyes



# Product Data Sheet

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## 5000 LO™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

**Exterior Concrete Substrates** – Must be clean, sound, solid after mechanically preparing to obtain good long-term performance. See preparation section for more information.

Check exterior concrete moisture via:

[ASTM F2659](#) <4% MC

[ASTM D4263](#) ONLY ACCEPTABLE FOR EXTERIOR DECORATIVE CONCRETE STAIN or CEMENTITIOUS DECORATIVE OVERLAYS FOOT TRAFFIC ENVIRONMENTS - No indication of moisture present, neither dampness indicated visually by color darkening of concrete nor condensation on the concrete surface or the plastic

**Moisture Level of Wooden Substrates** – Use a wood moisture meter to moisture of the wood prior to coating. No greater than:

- <8% MC for interior wooden substrates
- <12% MC for exterior wooden substrates (over APA rated marine or exterior grade)

Wood must be sound, solid & in good condition with no evidence of previous water damage, rot, mold, etc. otherwise replace the damaged sections with new wood.

**Chemical Contamination** – Additional testing may be required to determine the type of chemical contaminant, such as Petrographic core analysis. Once type of chemical is identified, contact Smith Paint Products for recommendations.

**Oil Contamination** – [Smith's Oil Clean](#) may be used to remove oils, such as petroleum, synthetic and food oils, from the surface of the concrete prior to mechanical preparation. Once oil has been removed from the surface & thoroughly rinsed with clean, potable water, mechanically prepare the concrete as stated on the next page. If oil continues to "weep" out of the concrete after mechanical preparation, clean again with [Smith's Oil Clean](#) then encapsulate the oil / grease remaining in the concrete while the substrate remains damp with water but ensure no standing puddles exist prior to application of 10 to 12 mils of [Smith's Epoxy MAC125](#) primer. Allow to cure for a minimum of 5 hours or overnight then use an 80 to 100 grit sanding screen under green pad on a floor machine:

- Orbital floor machine = ≤300 rpm & lightweight
  - Square head floor machine = 3,000 rpm with no added weight
- to abrade the surface & remove any contaminants that may have floated to the surface of the epoxy before it hard set. Vacuum off the sanding dust then wipe the epoxy primer surface with a slightly damp microfiber mop head using some Acetone.

\*DO NOT USE Denatured Alcohol or Xylene for this application.

**TEMPORARY HEAT:** Moisture vapor is emitted by fueled temporary heaters which creates condensation (i.e. Dew Point) on a floor surface & may cause an amine blush with epoxy products subsequently impacting following layers wetting & adhesion properties. Some temporary heaters may emit unburned petroleum into the air, especially if the equipment is not functioning properly, which will act as a bond breaker once it falls onto the surface of the substrate.

Take precaution when using LP, gasoline, diesel, etc. fueled temporary heat:

- Always shut off temporary heat at least 2 to 3 hours prior to application to reduce risk of an amine blush occurring with epoxy-based products
- Fisheyes are a result of surface contamination or an amine blush on an epoxy based previous layer which must be cleaned off via scrubbing with a degreaser in addition to mechanical preparation
  - Solvent wiping the substrate does not sufficiently for remove these residues
  - After mechanically preparing surface, always clean the surface with [Smith's Oil Clean](#) using an auto-scrubber followed by a thorough clean water rinse when temporary heat has been used to minimize risk of surface defects and/or peeling
- Ensure exhaust emissions & toxic fumes from temporary heaters exhaust to the exterior of the building to prevent health hazards & damage to work

### NECESSARY TOOLS & EQUIPMENT:

- Plastic Sheeting or Ram Board to cover floor for mix station
- Self-contained respiratory equipment/mask (TC 19C NIOSH/MESA)
- Low speed 1/2" drill (Variable Speed 300 to 450 rpm)
- Premium, non-shed 3/8" Nap Paint Roller Covers
- Several 18" wide, non-metallic Paint Roller Frames
- Notched Squeegee(s) [size varies depending on thickness / system]
- Flat Blade Squeegee [depending on application / system]
- 5-gallon Plastic Mixing Buckets
- Multiple Extension Poles
- Spiked shoes or Cleats
- Masking Tape (Solvent Resistant)
- Cleaning Solvent (Acetone or Xylene)



### SUBSTRATE PREPARATION:

**NOTE:** Methyl Methacrylate (MMA) is NOT an acceptable substrate & delamination will occur if topcoated.

Please refer to [ICRI Guideline 310.2R2013](#) for more in-depth preparation details & recommendations as well as Smith's system application guides.

**Cleaning** - Detergent scrub with a neutral pH floor detergent then rinse with clean, potable water to remove surface dirt, light surface grease / oil & contaminants prior to mechanical preparation. Heavy grease & oil should be removed using [Smith's Oil Clean](#).

If a densifier or dissipative curing compound is believed to have been present, use [Smith's Green Clean Pro](#) after mechanical preparation methods.

### CONCRETE - Mechanical Preparation Methods\*:

- **Diamond Grind** - Use 25 to 80 grit metal bond diamonds with an appropriate industrial, weighted head floor grinder to thoroughly remove the concrete surface until uniformly white. DO NOT USE resin bond, ceramic or transitional diamonds to prepare concrete to be sealed due to the risk of resin residue transfer to the concrete surface & potential for fisheyes or a bond breaker
- **Steel Shot Blast (Shot size S-230 to S-330 grit recommended)** – Uniformly clean & profile concrete substrates overlapping each pass until white, clean concrete exists which readily absorbs water. Remove steel shot from surface with magnetic broom, sweep then vacuum to remove debris & fine dust
- **\*Etching Compound** - [Smith's Green Clean Pro](#) buffered etching compound may be used only as follows:
  - Preparing new, decorative exterior textured concrete that has NOT been previously sealed, to include curing compounds, for residential foot traffic applications prior to staining with [Smith's Color Floor](#)
  - Remediation method for removing densifiers / silicates prior to mechanical preparation for floor coatings

When using [Smith's Green Clean Pro](#), ensure an even, dull appearance with a uniform sandpaper like finish with no patterns or dis-similar appearance. Shiny areas should not exist & will need further treatment. Rinse with water thoroughly.

#### NOTE:

- DO NOT USE Muriatic / Hydrochloric Acid to prepare concrete as chloride contamination can occur
- When etching, ensure all [Smith's Green Clean Pro](#) has been thoroughly removed with potable water with no remaining soapy residue or cement slurry
- DO NOT USE on "Green" concrete (less than 30 days old), Hard Trowel Finished concrete or previously sealed / coated/painted concrete to including any type of curing compound

Key in all termination points using a diamond cutting blade prior to any above preparation method.

Once mechanical prepared & substrate is clean, perform an [adhesion tape test \(ASTM D3359\)](#) & ensure the concrete readily absorbs water when a 2" diameter bead of clean, potable water is poured onto the prepared concrete surface which should uniformly darken in color as well as mostly soak into the concrete within 60 seconds.

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## 5000LO™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

**JOINTS & SUBSTRATE REPAIRS:** Honor expansion joints at the finish floor elevation. Follow [ACI 224.3R-95](#): Joints in Concrete Construction guidelines for proper filling joints.

ACI® recommends allowing a concrete slab to cure for a minimum of 60 to 90 days or longer to allowing the slab to shrink & acclimate to the intended joint width thus reducing the risk of joint wall separation from the joint filler.

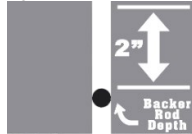
Cooler climate applications must remain at a minimum of 45°F substrate temperature for no less than 10 days prior to as well as 7 to 10 days after filling with an appropriate semi-rigid joint filler, such as [Smith's Poly JF](#) or [Smith's Poly JF<sub>FC</sub>](#), ideally longer if possible. Static joints may allow the coating system to bridge over [Smith's Poly JF](#) but it is NOT recommended to install a floor coating system over caulking, silicone, cement patching compounds, Polyurea & traditional Polyurethane flexible joint fillers.

Always route out joints with an appropriate width diamond cutting blade attached to a vacuumized & dust controlled joint saw to flush



**Control Joint**

out debris & freshly clean the side walls of the joint. Ensure that all loose edges & broken pieces of the concrete are removed & repaired prior to joint



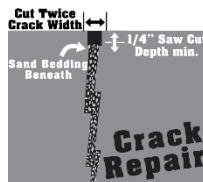
**Construction Joint**

filling. Should joint walls require extensive repairs, cut out the weak concrete back to a sound, solid area then infill with [Smith's SKM](#), [Smith's Epoxy FRM](#) or similar.

Support the joint filler & assist in sag reduction by filling the bottom of the joint with a bond breaker, such as sand, especially for use in shallow joints less than 2" depth. Use backer rod only if the joint filler is to be applied greater than 2" above the backer rod. Fill the joint with [Smith's Poly JF](#) or [Smith's Poly JF<sub>FC</sub>](#) twice as deep as the joint width.

**CONCRETE SUBSTRATE REPAIRS** – Patching of chips, gouges, etc. may be repaired with a variety of different, compatible coating materials, to include, [Smith's SKM](#), [Smith's Epoxy FRM](#) mortar, [Smith's Epoxy GEL-150](#), [Smith's Epoxy U100](#) or [Smith's Epoxy FC125](#) mixed with Silica Fume, [Smith's Poly PCF-45](#) or similar.

Saw cut cracks open with crack chaser to remove the weak wall of the crack on both sides & clean out debris then thoroughly vacuum prior to repairs. Small, isolated uneven, low gouges can be prepared using a needle scaler. Ensure resinous patching products are hard enough to walk on without imprinting or damage before proceeding with next step.



**Crack Repair**

Repairs with water-based cement compounds must be fully cured then mechanically prepare the concrete surface prior to coating. Ensure the following for proper adhesion & long-term performance:

- Fully cured testing via ASTM F2659 with ≤4% MC or a mat test for no less than 4 hours per ASTM D4263 with no signs of darkening nor condensation
  - Portland Cement based = 2 to 3 days for each 1/4" ave. thickness
  - Calcium Alumina-based cement = 24 hours for each 1/4" ave. thickness
- Rated direct wear traffic
- Cement-based - Calcium Alumina, CSA or Portland cement based only
  - NOT RECOMMENDED FOR USE OVER UNDERLAYMENT GRADE PATCH / LEVELERS to include polymer modified synthetic gypsum-based**
- Non-water soluble – Must be rated for exterior use on the data sheet
- Minimum 5,000 psi. once fully cured

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### Previous Layer Beyond Recoat Window OR Preparing an Existing Resinous Coating – Adhesion to any existing coating system is only as good as the adhesion the existing coating system has to its substrate. Always test to determine the suitability of an existing substrate and mock-ups are highly encouraged. Allow the mock-up to cure for no less than 1 week before performing adhesion testing, such as a tape test or using a pull off adhesion test per ASTM D4541 or ISO 4624:2023 [using a [DeFelsko® PosiTest®](#), [Elcometer® 106 \(range 3 or 4\)](#) or similar. Greater than 250 psi (1.7 MPa) to pass the test]. When in doubt, remove existing coatings or ceramic tile down to a sound, solid concrete substrate.

Clean to remove any bond breakers (i.e. oils, silicone, paint, debris, dust, etc.) then mechanically grind or sand the entire surface to be coated to a uniformly dull, "white" finish with no shiny areas then vacuum to remove the heavy dust / debris followed by solvent tack rag using a micro-fiber mop slightly dampened with Acetone, replacing with a clean, fresh micro-fiber pad often. Repeat until no dust can be seen after wiping a finger or dark cloth across dry floor surface.

Clean to remove any bond breakers (i.e. oils, silicone, paint, debris, dust, etc.) then mechanically grind or sand the entire surface to be coated to a uniformly dull, "white" finish with no shiny areas then vacuum to remove the heavy dust / debris followed by solvent tack rag using a micro-fiber mop slightly dampened with Acetone, replacing with a clean, fresh micro-fiber pad often. Repeat until no dust can be seen after wiping a finger or dark cloth across dry floor surface.



**DO NOT USE ALCOHOL to tack rag as moisture may be drawn to the surface.**

**Preparing Wooden Substrates** – Wood substrates APA<sup>SM</sup> rated (either exterior grade or marine grade) must be sound, solid, firmly fastened to the joints with no loose boards / planks, free of contaminants such as oil, wax, sealers, paint, etc. and without any insect damage or rot. The floor should not deflect under a 300 lbs. load more than the "span" divided by 360 for residential use or by 720 for commercial applications. Examples of maximum deflection below:

- Residential
  - L/360 (300 lbs. deflection test) or <1/2" (13mm) deflection in 15 ft. (4.6 m)
- Commercial or subfloors with 19.2" (48.7 cm) o.c. joists & 24" (61 cm) o.c. truss systems
  - L/720 (300 lbs. deflection test) or <1/4" (6mm) deflection in 15 ft. (4.6 m)

Thoroughly sand the entire surface to be coated then vacuum to remove all dust & debris paying close attention to seams, board joints, knot holes, fastener holes, etc. Seal off any holes / penetrations using foam sealants, which may require fire stop foam depending on local building codes. All board seams or other voids which may allow liquid to leak through should be patched or skim coated with an appropriate resinous based product, such as [Smith's SKM](#), [Smith's Epoxy GEL-150](#), [Smith's Poly-JF](#), [Smith's Poly-JF<sub>FC</sub>](#) or similar.

When ready, prime the wood substrate with a 3/8" non-shed paint roller with any of the products listed below:

- [Smith's Epoxy FW<sup>98</sup>](#) – Cures within a few hours at 72°F
- [Smith's Epoxy U100](#) – Recoat in 5 up to 24 hours at 72°F
- [Smith's Epoxy FC125](#) – Recoat in 2 1/2 up to 12 hours at 72°F
- [Smith's Polyaspartic 1000](#) – Recoat in 2 up to 24 hours at 72°F
- [Smith's Polyaspartic 7000LO](#) – Recoat in 3 up to 24 hours at 72°F

Once the primer is ready to recoat, proceed with remaining layers of the desired coating system. Primer is considered ready when firm set & does not transfer anything to your finger when touched but may feel slightly tacky.

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## 5000<sup>LO</sup>™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

**MIXING:** Premix Part A for approximately 1 minute using a clean, paint mixing paddle on a low speed ½” drill (300 to 450 rpm). Combine Parts A & B to continue mechanically mixing for 2 to 3 additional minutes.

**DO NOT STICK MIX!**

Mix station & all application equipment should be ready for immediate use prior to mixing any product. Higher temperatures & humidity will shorten working time.

DO NOT TURN THE MIXING VESSEL UPSIDE DOWN allowing the mixing vessel to drain on to the substrate to avoid risk of any unmixed or non-thoroughly catalyzed product from the bottom or sides of the mixing vessel from contaminating the floor.

**Mixing By Volume** – Shake Part A for 30 seconds. Measure 2 Parts A to 1 Part B then combine in a clean, appropriate size mixing vessel. Mix using a low speed drill (300 to 450 RPM) with paint mixing paddle for 3 minutes.



**ALWAYS BOX COLORS!**  
to Ensure Colors Match between BN#'s



**Metallic & Luster Body Coat** – Add ½ to 1 jar of [Smith's Metallic & Luster](#) to 1 gallon Polyaspartic 5000<sup>LO</sup> Part A then mechanically mix using a low speed ½” drill (300 to 450 rpm) with a paint mixing paddle for roughly 3 minutes to ensure no powder lumps remain in the liquid. The ratio may vary between 4 up to 8 ounces per mixed gallon of liquid to achieve an assortment of mottling effects.

Combine 1 gallon Part A (previously mixed with Metallic & Luster) with ½ gallon Part B then mechanically mix with a low-speed drill (300 to 450 RPM) with a paint mixing paddle for 2 to 3 minutes.

- Ensure no lumps remain in the mixed solution before proceeding
- Should lumps remain, pour the mixture through a paint strainer

Pour the mixture onto the floor at a rate of 80 to 106 sq.ft. per gallon over a properly primed substrate.

See [application guide](#) for detailed system application instructions.

**High Gloss Topcoat over Metallic & Luster** – Sand to thoroughly degloss the metallic body coat, vacuum then use a fresh, clean microfiber mop to remove any remain dust then tack rag with a lightly Acetone dampened fresh microfiber pad to tack rag.



**DO NOT USE Denature Alcohol** prior to applying Polyaspartic!

Pour a ribbon of Smith's Polyaspartic 5000<sup>LO</sup>, evenly spread using an 8 to 12 mil V-notched squeegee then back roll with a 3/8” nap, solvent resistant non-shed paint roller.

**NOTE:** An “orange peel” texture may occur when:

- Applied less than 8 mils Wet Film Thickness
- Applied during high humidity / temperature
- Cool temperature installations below 65°F (18.3°C), including product, substrate and/or air temperature at time of application. Especially when applied at less than 15 mils WFT in cool temperature installations

**SMITH'S POLYASPARTIC SYSTEMS:** Reference published [Polyaspartic system application guides](#) for Vinyl Chip, Quartz, Solids Color, or Metallic & Luster.

**SLIP RESISTANCE:** Smith Paint Products recommends the use of angular slip-resistant aggregate in all coatings that may be exposed to wet, oily, or greasy conditions as well as any condition where increased traction may be necessary. It is the contractor & end users' responsibility to determine the appropriate traction needs & footwear necessary for the conditions as well as setting performance parameters prior to beginning the application, testing to determine parameters have been met upon completion to achieve the end users documented safety standards.

Mock-ups are highly recommended as part of the evaluation process to determine the appropriate amount of slip-coefficient necessary for the environment.

Do NOT Use Smith's A/O 325 Aluminum Oxide for additional traction in a topcoat as it is too fine to be considered “Anti-skid”. Instead use a 20 to 40 mesh traction additive, such as [Smith's Resin Sand](#) or similar.

**MAINTENANCE:** *The coating system must be allowed to cure for no less than one week before using any mechanical cleaning equipment on the surface & no less than 48 hours before neutral pH cleaner or water exposure. This includes auto-scrubbers, swing buffers, sweepers, etc. Only dust & wet mopping may occur the first 48 hours after finishing application.*

[\\*Click here for in-depth maintenance & cleaning recommendations](#)

Dust mopping, removal of debris & regular cleaning is crucial to maintaining the aesthetics of the coating & obtaining the maximum life span of the floor coating system. Cleaning cannot occur too often & inefficient cleaning will cause the floor to wear out prematurely & possibly stain or discolor depending on what comes in contact with the floor. Spills should be removed quickly. Avoid the use of Polypropylene or abrasive bristle (Tynex®) brushes as these brushes will cause the development of scratch patterns & lessen the sheen.

To maximum your investment with proper floor care & maintenance, remove all particles that may scratch and/or dull the floor coating using the least aggressive method necessary to clean the floor.

It is good practice to develop a floor maintenance schedule to be performed at the end of each shift & a set day per week or month for heavy cleaning:

- Daily = Sweep & dust mop or water only mopping / auto-scrubbing; spot clean spills & oils
- Weekly or Monthly = Scrubbed once per week or month depending on the amount & type of soils present

Health Department or DEA regulations may necessitate more frequent & stringent cleaning practices as will areas more prone to oils, inks, chemicals, etc. on the floor surface.

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# Product Data Sheet

POLYASPARTIC

POLYAPARTIC5000LO-PDS-04072026

## 5000 LO™ Low Odor, Solvent-based, 86% Solids Aliphatic Polyaspartic

**DETERGENT:** Always use the least aggressive detergent necessary to remove the soil to help optimize the performance and longevity of the floor coating system. Use a neutral pH floor detergent for general purpose cleaning. Use [Smith's Oil Clean](#), or similar degreaser, for more degreasing & heavy weekly or monthly cleaning.

**Precautions:**

- Do not drag or drop heavy objects across any floor, including coatings as scratching, gouging, or chipping may occur to the concrete or the coating itself. This includes the tip of the forks on a forklift, nails protruding from a pallet, etc.
- Avoid spinning tires on a coated floor surface, the friction of a spinning tire will quickly soften the coating causing permanent damage
- Should a gouge, chip or scratch occur, touch-up the damaged areas immediately to avoid chemical or water intrusion to the concrete which could create additional damage. A thin layer of clear nail polish to the damaged area will provide some minimal protection until the area can be properly repaired
- Rubber tires are prone to plasticizer migration, especially aviation tires and high-performance car tires. Plasticizer will stain coating & commercial flooring leaving an amber, yellow-like stain that can be permanent. This can be more noticeable where aircraft or vehicles are stationary for longer time, more so in non-climate-controlled environments such as aircraft hangar with lighter colored floors. To avoid plasticizer staining, use a piece of Plexiglas® or LEXAN® panels, cut a few inches in diameter larger than the tires that will rest on the panels, between the floor & the contact point of the tire when storing rubber-tired vehicles on any floor, including floor coating systems. Some tire stains can be removed if cleaned before a set-in stain occurs using a d-Limonene based degreaser with mild agitation via an orbital, low speed floor machine
- [Click here for tips regarding tire marks](#)
- Avoid using "no rinse" cleaners or cleaners which may leave a residue on the surface, such as simple green®, as these products tend to build up a film causing the surface to become slippery, especially when damp, as well as attract soils and/or stains more than an appropriate cleaner

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