



Dudick inc.

Corporate Offices
1818 Miller Parkway
Streetsboro, OH 44241
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POLYMER ALLOY 1000/1000SF

100% SOLIDS, MULTI-FUNCTIONAL, SEMI-SELF LEVELING OR SEEDED EPOXY FLOOR TOPPING

FEATURES

- Meets all VOC requirements.
- Low Odor/Solvent Free
- Semi-self leveling to a high-gloss or satin finish at 20 mils.
- USDA Compliant
- Stain resistant with good clean ability.
- Can be aggregate filled and trowelled at 3/16"-1/4" using **EA-1 Aggregate.**
- Can be seeded for anti-skid surface.
- Can saturate fiberglass reinforcement for better crack bridging properties.

RECOMMENDED APPLICATIONS

- Food Processing Floors
- Laboratories
- Pharmaceutical Plants
- Waste Water Treatment Facilities
- Aisleways
- Printed Circuit Board Facilities

CHEMICAL RESISTANCE

- Dilute Inorganic Acids
- Dilute Alkali Solutions
- Aliphatic Organic Solvents
- Mineral Oils
- Salt Solutions

COLORS:

Standard Color Chart available upon request.

PHYSICAL PROPERTIES

	<u>PA-1000</u>	<u>PA1000SF</u>
Compressive Strength ASTM C-579	6,000 PSI	7,000 PSI
Tensile Strength ASTM C-307	2,200 PSI	1,700 PSI
Flexural Strength ASTM C-580	1,800 PSI	1,600 PSI
Flame Spread ASTM D-635	< 5 mm	Same
Shore D Hardness ASTM D-2240	80 - 90	-----
VOC ASTM D-3960	0	Same
Tensile Bond Strength	Cohesive Failure of Concrete	Same
ASTM D-4541		
Taber Abrasion ASTM D-4060	33 mg	-----
Specular Gloss ASTM D-523(60°)	Satin 75-90	-----
	Gloss 85-95 (20°)	-----
Fungus Resistance U.S. Mil Std. 810E	No Growth	-----

SPECIFICATIONS

Polymer Alloy 1000 shall be a 20 mil thick, semi-self leveling, 100% solids multifunctional epoxy floor topping. **Polymer Alloy 1000SF** shall be a 1/16" - 1/8" thick, 100% solids seeded epoxy floor topping.

Both products are manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommendations.

THE POLYMER ALLOY 1000 SYSTEM

Polymer Alloy 1000 uses a moisture-tolerant primer and a semi-self leveling topcoat to achieve a strongly bonded monolithic topping with moderate chemical resistance and good physical and mechanical properties.

Primer 67: The blasted or etched concrete surface must be primed to provide the “wetting out” required for good bonding. **Polymer Alloy 1000** can be applied while the primer is still tacky. Do not allow the primer to puddle.

Topcoat: The semi-self-leveling **Polymer Alloy 1000** develops a cured strength 2-3 times that of concrete providing exceptional durability and prolonging the life of the concrete substrate. Two topcoats may be necessary depending upon applied texture.

THE POLYMER ALLOY 1000SF SYSTEM

Polymer Alloy 1000SF uses a moisture-tolerant primer, sand or aluminum oxide broadcast and epoxy resin to achieve a strongly bonded monolithic topping with moderate chemical resistance and good physical and mechanical properties.

Primer 67: The blasted or etched concrete surface must be primed to provide the “wetting out” required for good bonding. **Polymer Alloy 1000SF** can be applied while the primer is still tacky. Do not allow the primer to puddle.

Basecoat: The sand or aluminum oxide filled **Polymer Alloy 1000SF** basecoat develops a cured strength 2-3 times that of the concrete base to which it is applied to provide exceptional durability and prolong the life of the substrate.

Broadcast: Sand or aluminum oxide is used for non-slip texture; aluminum oxide provides additional chemical and abrasion resistance. Either material is broadcasted to complete saturation, and the excess removed by sweeping.

Optional Sealer: If broadcasted surface requires encapsulation, it can be sealed with the **Polymer Alloy 1000SF** resin system.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER GALLON	
CONCRETE	
Primer 67	150-200 ft. ²
POLYMER ALLOY 1000	
Topcoat @ 20 mils	80 ft. ²
Sealer 25 (optional)	300-400 ft. ²
S-10 Solvent	500 ft. ²
EA-1 Filler	55-65 ft. ² /200 lbs.

APPROXIMATE SQUARE FEET PER GALLON	
CONCRETE	
Primer 67	150-200 ft. ²
POLYMER ALLOY 1000SF	
Basecoat @ 20 mils	80 ft. ²
S-10 Solvent	500 ft. ²
Aluminum Oxide	2 - 2-1/2 lbs./ft. ²
20-40 Mesh Sand	1 - 1/2 lbs./ft. ²
Topcoat @ 8-10 mils	140-170 ft. ²

**Quantities shown are for estimating purposes only. Actual field usage may vary.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Concrete: Concrete must be mechanically prepared to remove surface laitance. Oils, grease or other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 60-80 grit sandpaper or the visual standard, CSP-3 from the International Concrete Repair Institute. The prepared surface should have a nominal tensile strength of 225 psi per ASTM D-4541.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 60-80 grit texture is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure.

Mechanical preparation removes laitance, exposing honeycombs or voids beneath the surface, which must be



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filled with **Scratch Coat 300**. (Refer to separate product bulletin)

APPLICATION SPECIFICATIONS

Temperature of concrete substrate must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

PRIMER 67 MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B 1 gallon

PRIMER 67 POT LIFE

Temperature	Pot Life
50°F	90 min.
75°F	60 min.
90°F	30 min.

POLYMER ALLOY 1000 MIX RATIO (BY VOLUME)

GLOSS

Component A 1 gallon
Component B 51 fl. oz.

SATIN

Component A 1 gallon
Component B 66 fl. oz.

SEALER 25 MIX RATIOS (BY VOLUME)

CLEAR GLOSS

Component A 1 gallon
Component B 65 fl. oz.

CLEAR SATIN

Component A 1 gallon
Component B 61 fl. oz.

PIGMENTED

Component A 1 gallon
Component B 58 fl. oz.

PRIMING

Concrete: Concrete must always be primed to aid in the “wetting-out” required for good bonding. Mix **Primer 67 Component A and B** for 2-3 minutes and apply with a roller at 3-4 mils, WFT. Do not allow the primer to puddle.

Important: With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

TOPCOAT

Prior to adding **Component B**, mix **Polymer Alloy 1000 Component A** for 1-2 minutes to assure that any pigment or filler, which may have settled, is redispersed so that a uniform color is achieved. Combine the **A and B Components** and stir mechanically for approximately 2-3 minutes. Scrape the sides and bottom of the container and remix for another 30 seconds to achieve a uniform color and consistency. Pour the **Polymer Alloy 1000** mix directly onto the primed concrete.

The mix should be spread to a 20 mil thickness with a serrated squeegee, notched trowel or gauge rake. After spreading the material to the proper thickness, backroll or roll with a porcupine roller to level and deaerate.



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CLEANING

Use **S-10 Cleaning Solvent** to clean tools and equipment.
DO NOT USE ACETONE.

SHIPPING

Refer to Material Safety Data Sheets.

STORAGE

Warning: All Dudick products classified by DOT with either white, yellow, or red labels must not be mixed or stored together as an explosive reaction can occur.

Store all products in a cool, dry area away from open flames, sparks, or other hazards.

When stored in their original, unopened containers at 50°F – 75°F **Prime 67** and **Polymer Alloy 1000/1000SF/Sealer** components will have a six-month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

SAFETY

M.S.D.S.: Material Safety Data Sheets must always be read before using products. Polymer Alloy 1000/1000SF materials are intended for application by experienced, professional personnel. Dudick, Inc., can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Polymer Alloy 1000/1000SF** is to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Polymer Alloy 1000/1000SF** liquid can be removed with S-10 Cleaning Solvent, MEK, or lacquer thinner. **DO NOT USE ACETONE.**
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact; flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

NOTE: Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and

the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABILITY OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

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