



Dudick inc.

Corporate Offices
1818 Miller Parkway
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POLYMER ALLOY 1000/1000SF

**HIGH 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 Mineral Oils
Dilute Alkali Solutions Salt Solutions
Aliphatic Organic Solvents

COLORS

Standard Color Chart available upon request.

PHYSICAL PROPERTIES

	<i>PA 1000</i>	<i>PA 1000SF</i>
Compressive Strength ASTM C579	>12,000 PSI	>12,000 PSI
Compressive Strength ASTM D695	21,000 PSI	21,000 PSI
Tensile Strength ASTM C307	2,200 PSI	1,700 PSI
Tensile Strength ASTM D638	5,200 PSI	5,200 PSI
Flexural Strength ASTM C580	6,800 PSI	6,800 PSI
Flame Spread ASTM D635	<5 mm	<5 mm
Shore D Hardness ASTM D2240	80-90	-----
Tensile Bond Strength ASTM D7234	Cohesive failure of concrete	Cohesive failure of concrete
Taber Abrasion	33 mg	-----
Fungus Resistance	No Growth	-----
Water Absorption ASTM C413	0.0324%	0.0324%

SPECIFICATIONS

Polymer Alloy 1000 shall be a 20 mil thick, semi-self leveling, multifunctional epoxy floor topping. **Polymer Alloy 1000SF** shall be a 1/16” - 1/8” thick, 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: 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: 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 Topcoat: If broadcasted surface requires encapsulation, it can be sealed with the **Polymer Alloy 1000SF** resin system.

OPTIONAL SEALERS

For **improved** UV stability, abrasion, stain resistance and chemical resistance. A Sealer can be applied over **Polymer Alloy 1000/1000SF**. Consult Dudick for best options.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER GALLON	
CONCRETE	
Primer	See specified Primer Data Sheet
POLYMER ALLOY 1000	
Topcoat @ 20 mils	80 ft. ²
S-10 Solvent	500 ft. ²

EA-1 Filler	55-65 ft. ² /200 lbs.
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APPROXIMATE SQUARE FEET PER GALLON	
CONCRETE	
Primer	See specified Primer Data Sheet
POLYMER ALLOY 1000SF	
Basecoat @ 20 mils	80 ft. ²
S-10 Solvent	500 ft. ²
Aluminum Oxide	1 ½ - 2 lbs./ft. ²
20-40 Mesh Sand	¾ - 1 lbs./ft. ²
Topcoat @ 8-10 mils	140-170 ft. ²

**Quantities shown are for estimating purposes only. Actual field usage may vary. Additional topcoat material may be needed to encapsulate aggregate depending on the size of the aggregate and desired texture.

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 250 psi per ASTM D7234.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D4263.

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 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.

PRIMING



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The following Primers are compatible with **Polymer Alloy 1000/1000SF**: Primer 67, Primer 67LV, Primer 67DPLV, Primer 67DTO & Primer 60.

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 and roll with a porcupine roller to level and deaerate.

To terminate work, use duct tape to set a straight edge and remove the tape when the topping becomes lightly tacky. Start the next work period butting into this area. Permanent terminating lines should be made into the saw cuts in the concrete.

POT LIFE AND CURE CYCLE

Polymer Alloy 1000		
Temperature	Pot Life	Cure Time
50°F	50-60 min.	72 hrs.
75°F	30-40 min.	24 hrs.
90°F	20-30 min.	20 hrs.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

POLYMER ALLOY 1000SF MIX RATIO (BY VOLUME)

Component A 1 gallon

Component B 48 fl. oz.

SEMI GLOSS

Component A 1 gallon

Component B 65 fl. oz

Basecoat: Prior to adding **Component B**, mix **Polymer Alloy 1000SF Component A** for 1-2 minutes to assure that any pigment or filler which may have settled is re-dispersed so that a uniform color is achieved. Combine the **A and B Components** and stir mechanically for approximately 2-3 minutes. Thoroughly scrape the sides and bottom of the container and remix for another 30 second to achieve a uniform color and consistency. Pour the **Polymer Alloy 1000SF** 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, roll with a porcupine roller to level and de-aerate. Broadcast 20-40 mesh sand or aluminum oxide into the wet basecoat to complete saturation. Once cured, remove excess with a broom. This will produce a 1/16" thick topping. If additional thickness is specified, repeat the above steps.

When a 1/8" thickness is required, it is recommended that the application be done in two successive layers. Using two "seed coats" assures greater uniformity in both thickness as well as aesthetic quality.

Topcoat: Prior to adding **Component B**, mix **Polymer Alloy 1000SF Component A** for 1-2 minutes to assure that any pigment or filler which may have settled is re-dispersed so that a uniform color is achieved. Combine the **A and B Components** and stir mechanically for approximately 2-3 minutes. Thoroughly scrape the sides and bottom of the container and remix for another 30 seconds to achieve a uniform color and consistency. Apply by roller. If surface texture is too rough a second sealer coat can be applied.

POT LIFE AND CURE CYCLE

Polymer Alloy 1000SF/Sealer		
Temperature	Pot Life	Cure Time
50°F	50-60 min.	72 hrs.
75°F	30-40 min.	24 hrs.
90°F	20-30 min.	20 hrs.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

Application of **Polymer Alloy 1000/1000SF** in direct sunlight may lead to blistering, pinholes, or wrinkling due to out-gassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative.

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° **Primers, Polymer Alloy 1000/1000SF** and **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 MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF**



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05/30/18