Dudick inc.

Corporate Offices
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POLYMER ALLOY 2000/2000SF

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

FEATURES

Meets all VOC Requirements.

Low Odor/Solvent Free Compliant

USDA Compliant

Semi-Self Leveling to a Hi-Gloss or Satin Finish at 20 Mils.

Stain Resistant with Good Cleanability.

Can be Aggregate Filled and Troweled at 1/4" using **EA-1 Filler** for Heavy Traffic.

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
Hangers

CHEMICAL RESISTANCE

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

COLORS: Standard Color Chart available upon request.

PHYSICAL PROPERTIES

	PA 2000	PA 2000SF
Compressive Strength ASTM C-579	6,000 PSI	7,000 PSI
Tensile Strength ASTM C-307	2,200 PSI	1,700 PSI
Tensile Elongation ASTM C-307	5-10%	-------
Flexural Strength ASTM C-580	1,800 PSI	1,600 PSI
Taber Abrasion ASTM D-4060	35 mg.	
Flame Spread Index	<40*	Same
Shore D Hardness ASTM D-2240	80-90	----------
VOC ASTM D-3960	0	Same
Tensile Bond Strength ASTM D-4541	Cohesive Failure of Concrete	Same
Specular Gloss ASTM D-523	Satin 75-95@ 60º ---------- H. Gloss 90-100@20º--------	
Fungus Resistance U.S. Mil Std. 810E	No Growth	----------

*depends on thickness

SPECIFICATIONS

Polymer Alloy 2000 shall be 20 mils thick, semi-self-leveling, 100% solids epoxy floor topping. **Polymer Alloy 2000SF** shall be 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 recommended practices.

THE POLYMER ALLOY 2000 SYSTEM

Polymer Alloy 2000 uses a moisture-tolerant primer and a flexible semi-self-leveling epoxy 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, using **Primer 67. Polymer Alloy 2000** can be applied while the primer is still tacky. Do not allow the primer to puddle.

Topcoat: The semi-self-leveling **Polymer Alloy 2000** 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.

Optional Sealer 25*:* If greater resistance to solvents or UV is needed, a sealer can be applied the following day. An optional second sealer coat may be applied if a textured finish is desired.

THE POLYMER ALLOY 2000SF SYSTEM

Polymer Alloy 2000SF 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, using **Primer 67. Polymer Alloy 2000SF** 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 2000SF** 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.

Topcoat: If the broadcasted surface requires encapsulation, it can be sealed the with **Polymer Alloy 2000SF** resin system. This will help provide better cleanability.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER GALLON	
	CONCRETE
Primer 67	150-200 ft.²
Polymer Alloy 2000	
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 2000SF	
Basecoat @ 20 mils	80 ft.²
S-10 Solvent	500 ft.²
Aluminum Oxide	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 filled with **Scratch Coat 300**. (Refer to separate product bulletin)

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APPLICATION SPECIFICATIONS

Temperature of concrete substrate must be between 50ºF and 110ºF.

Relative humidity must not exceed 90%.

Substrate temperature must be 5ºF 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
50ºF	90 min.
75ºF	60 min.
90ºF	30 min.

POLYMER ALLOY 2000 MIX RATIOS (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.

(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 brush, roller or spray 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 2000 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. Thoroughly scrape the sides and bottom of the container and re-mix for another 30 seconds to achieve a uniform color and consistency. Pour the **Polymer Alloy 2000** 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.

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

SEALER 25 (OPTIONAL)

***Allow Polymer Alloy 2000 to cure a minimum of 24 hours @75°F before Sealer 25 application, or 48 hours @ temperatures below 60°F.**

Mix the **Sealer 25 Component A** separately for approximately 1 minute to redisperse pigments and fillers. Add the correct amount of **Component B to Component A** and mix to achieve a uniform consistency. Apply by

roller at 6 to 8 mils, WFT, after the basecoat has cured for at least 24 hours. Allow the **Sealer 25** to cure overnight before subjecting the area to foot traffic, and a minimum of 48 hours at 70°F before permitting truck traffic.

Pot Life and Cure Cycles

Polymer Alloy 2000		
Temperature	**Pot Life**	**Cure Time**
50ºF	50-60 min.	72 hrs.
75ºF	30-40 min.	24 hrs.
90ºF	20-30 min.	20 hrs.
Sealer 25		
Temperature	**Pot Life**	**Cure Time**
50ºF	50-60 min.	96 hrs.
75ºF	40-50 min.	48 hrs.
90ºF	30-40 min.	24 hrs.

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

POLYMER ALLOY 2000SF

POLYMER ALLOY 2000SF MIX RATIO (BY VOLUME)

Component A	1 gallon
Component B	51 fl. oz.

PRIMING

Same as for **Polymer Alloy 2000**.

BASECOAT

Prior to adding **Component B**, mix **Polymer Alloy 2000SF 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. Thoroughly scrape the sides and bottom of the container and re-mix for another 30 seconds to achieve a uniform color and consistency. Pour the **Polymer Alloy 2000SF** 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. The gauge rake is preferred. 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.

SEALER (OPTIONAL)

Prior to adding **Component B**, mix **Polymer Alloy 2000SF 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 at 6-8 wet mils. If surface texture is too rough a second sealer coat can be applied.

Pot Life and Cure Cycles:

Polymer Alloy 2000/SF Sealer		
Temperature	**Pot Life**	**Cure Time**
50ºF	50-60 min.	72 hrs.
75ºF	30-40 min.	24 hrs.
90ºF	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 2000/2000SF** in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative.

SHIPPING

Refer to Material Safety Data Sheets

STORAGE

Warning: All Dudick products classified by DOT labels as either white, yellow or red labels must not be mixed or stored together as an explosive reaction may 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 **Primer 67, Polymer Alloy 2000/SF** and **Sealer 25** 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 2000** 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 2000** materials are 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 2000/2000SF** liquid can be removed with S-10 Cleaning Solvent, MEK, or lacquer thinner.
- 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.

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 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.

4/22/10