Polymer Alloy 2000LE

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	100% solids epoxy
Description	Polymer Alloy 2000LE is a flexible, semi-self leveling, 100% solids epoxy floor topping with industry-leading low emissions testing. It is strongly bonded monolithic coating with moderate chemical resistance and good physical and mechanical properties. This product 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.
Features	• Industry standard for low cured emissions • Meets all VOC Requirements • Low Odor/Solvent Free Compliant • USDA Compliant • Semi-Self Leveling • Stain Resistant with Good Cleanability • Can be Seeded for Anti-Skid Surface • Can Saturate Fiberglass Reinforcement for Better Crack Bridging Properties
Typical Uses	• Electronic facilities • Food Processing Floors • Laboratories • Pharmaceutical Plants • Waste Water Treatment Facilities • Aisleways • Hangars
Color	Standard Color Chart available upon request.
Primer	Primer 67, Primer 67LV, Primer 67DPLV, Primer 67DTO
Dry Film Thickness	20 - 30 mils (508 - 762 microns) DFT Actual field usage may vary. Additional topcoat material may be needed to encapsulate aggregate depending on the size of the aggregate and desired texture.
Solids Content	By Volume 100%
Theoretical Coverage Rate	1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) 80 ft²/gal at 20.0 mils (2.0 m²/l at 500 microns) 53 ft²/gal at 30.0 mils (1.3 m²/l at 750 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 0 g/l
Chemical Resistance	• Dilute Inorganic Acids • Dilute Alkali Solutions • Aliphatic Organic Solvents • Mineral Oils • Salt Solutions Resistant to splash and spillage of the above chemicals. Not for use in immersion.
Topcoats	**Optional Sealers:** If enhanced scuff and scratch resistance is desired, optional topcoat and urethane sealers are available. Consult your Dudick or Carboline representative or technical service for recommendations specific to the service environment.

SUBSTRATES & SURFACE PREPARATION

Concrete

Concrete must be prepared mechanically 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 (per SSPC SP-13/NACE No.6). Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP 3-5 from the International Concrete Repair Institute (ICRI) with pea gravel exposed. The prepared surface shall have a minimum tensile strength of 250 PSI per ASTM D7234.

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

PERFORMANCE DATA (TYPICAL VALUES)

Test Method	Results
Compressive Strength ASTM C-579	>12,000 PSI
Compressive Strength ASTM D-695	21,000 PSI
Flame Spread ASTM D-635	<5 mm
Flexural Strength ASTM C-580	11,500 PSI
Fungus Resistance	No Growth
Shore D Hardness ASTM D-2240	80 – 90
Taber Abrasion ASTM D-4060	33 mg
Tensile Bond Strength ASTM D-7234	Cohesive Failure of Concrete
Tensile Bond Strength on Steel	1500+ PSI
Tensile Strength ASTM C-307	5,000 PSI
Tensile Strength ASTM D-638	7,200 PSI
Water Absorption ASTM C-413	0.0324%

MIXING & THINNING

Mixing

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.

DO NOT MIX PARTIAL KITS.

Ratio

2.57:1 (A:B)

Pot Life

30-40 minutes @ 75ºF (24ºC)

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

APPLICATION PROCEDURES

General

The blasted or etched concrete surface must be primed to provide the “wetting out” required for good bonding using the appropriate primer. Polymer Alloy 2000LE can be applied while the primer is still tacky. Do not allow the primer to puddle.

Pour the 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 saw cuts in the concrete.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	110°F (43°C)	110°F (43°C)	110°F (43°C)	90%

Substrate temperature must be 5ºF (3ºC) above the Dew Point.
Application of Polymer Alloy 2000LE 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.

CURING SCHEDULE

Surface Temp.	Minimum Recoat Time	Maximum Recoat Time	Light Traffic
50°F (10°C)	30 Hours	120 Hours	72 Hours
75°F (24°C)	16 Hours	24 Hours	24 Hours
90°F (32°C)	10 Hours	20 Hours	20 Hours

CLEANUP & SAFETY

Cleanup

Use S-10 Cleaning Solvent to clean tools and equipment.

Safety

Read and follow all caution statements on this product data sheet and on the SDS. Employ normal safety precautions. Keep container closed when not in use.

Ventilation

Ventilation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. Use MSHA/NIOSH approved air respirators as needed.

Caution

Fire and explosion hazards: This product contains less than 1% volatile components, however, vapors are heavier than air and can travel long distances, ignite and flash back. Eliminate all Ignitions sources. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Packaging	**1 Gallon (3.79 Liters) Kit:** Component A - 0.72 gal (2.73 liters) Component B - 0.28 gal (1.06 liters) **5 Gallon (18.93 Liters) Kit:** Component A - 3.6 gal (13.63 liters) Component B - 1.4 gal (5.30 liters)
Shelf Life	12 months
Storage Temperature & Humidity	50-100°F (10-38°C) 24 hours before application, all components should be stored at a 65-85°F (18-29°C) to facilitate application. 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 dry area away from open flames, sparks, or other hazards.

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.