



PLEXGARD™

**Water-based
acrylic coating for
use on interior or
exterior surfaces**

Advantages:

- Colors, protects, and preserves concrete
- Durable
- Available in 16 (sixteen) standard colors (Surface Colors) with or without grit
- Developed for high foot traffic, not suitable under rubber tire traffic
- Ideal for supermarkets, movie theaters and pharmacy chains

Coverage:

- First Coat – 200-250 ft² per gallon (4.9-6.1m²/L)
- Second Coat – 250-300 ft² per gallon (6.1-7.4m²/liter)

**See Coverage
section for full
details**

Packaging:

5 gal (18.9L) pails



LAMBERT CORPORATION
20 N. COBURN AVENUE, ORLANDO, FLORIDA 32805
PHONE: (407) 841-2940 TOLL FREE: 800-432-4746
FAX: (407) 839-1890
WEBSITE: <http://www.lambertusa.com>

Revision: January 2008

Supersedes all previous publications

Product Description

PLEXGARD™ is a high performance, coating primarily designed to color, protect, and preserve new and old concrete surfaces. It is a water-based product that provides environmentally safe usage plus easy application and clean up for the user.

PLEXGARD™ is formulated with specially selected resins, pigments, and fillers that provide a durable surface coating highly resistant to abrasion. One of its most attractive features is the quick cure and dry time - a second coat can generally be applied 1-2 hours after the first coat and subsequently ready for pedestrian traffic in less than 24 hours. This eliminates the inconvenience of having to withdraw decks and floors from service for long curing and drying periods. The pleasing colors of PLEXGARD™ will also create additional beauty and warmth to normally dull, unattractive exterior and interior concrete surfaces.

PLEXGARD™ is a special coating developed for use primarily in areas of high foot traffic where a tough, longer wearing surface is desirable. It is manufactured with raw materials that give the coating a coarse slip resistive feel when combined with a light-broomed concrete finish.

PLEXGARD™ is often used as a companion product to Lambert's shake-on colored concrete hardeners, and with Lambert's integral mixed concrete colors. PLEXGARD™ has been the specified floor surface coating for high foot traffic areas with companies such as supermarkets, movie theaters, and pharmacy chains. Some of these chains have used PLEXGARD™ as long as 35 years.

PLEXGARD™ does not promote slippage when used on a textured surface. However, water and other liquids will increase the slip potential when on any surface.

Installation

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and environmental issues. The following information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

Surface Preparation

Improper surface preparation can result in less than acceptable product performance. It is very easy to blame adhesion problems that occur on the product used, when poor surface preparation is really where the fault lies. Depending on surface to be treated, the following steps should be taken.

To ensure proper PLEXGARD™ adhesion and maximum durability, the concrete surface must be sound, free of laitance and thoroughly cleaned of dirt, dust, salts, mold, mildew, algae, curing and sealing compounds and such. Concrete surfaces should be cured sufficiently to allow for proper cement hydration and the release of mineral salts. Salts and laitance can break down the bond of coating products such as PLEXGARD™. Laitance is the soft skin of a high water-cement ratio gel that comes to the surface when concrete is poured. These salt and laitance areas should be water blasted to produce an acceptable sound and open surface for PLEXGARD™ bonding. Pressure wash using a high-pressure pump with 3,000 to 3,500 PSI (20.7-24.1 MPa) is very effective.

PLEXGARD™ may not bond well to aged, hardened, non-porous, smooth glassy finished concrete because of not being able to secure a mechanical or chemical bond. This type of surface must be shot blast, acid etched, or sandblasted.

Application

Before using this product, please refer to the Material Safety Data Sheet for additional handling instructions. Proper handling precautions MUST be taken.

PLEXGARD™ is easily applied with a clean brush, roller, lambs wool applicator or spray equipment. Most applications are by roller or lambs wool applicator. Stir PLEXGARD™ thoroughly before application. Apply in a thin uniform coat. Two coats are suggested for best surface protection and longevity. PLEXGARD™ can be re-applied as a second coat approximately one to two hours after installation of the first coat. Apply in good weather when air and surface temperatures are above 50°F (10°C) and rising. Avoid application of PLEXGARD™ to hot concrete in direct sunlight - 100°F (37.8°C) or more.

Pool Decks

Follow same procedure as above with exception to following: Pool decks usually have black algae stains, algae is bacteria that must be killed with chlorine. Correct method for cleaning is to use straight bleach and scrub thoroughly, after which rinse excessively with clean water. After rinsing, follow acid etch procedure, **remember to rinse with water before applying acid otherwise a harsh chemical reaction will occur.** When selecting color for pool decks, choose a light color which will be cooler to bare feet.

Special Instructions - Garage Floors

PLEXGARD™ has a tendency to react (soften) under contact with vinyl and rubber plasticizers in hot tires. On smooth dense concrete slabs, this reaction may cause a "hot tire peel-off" condition. This condition can generally be lessened by substrate texturing which allows for better "teeth" and for better substrate bond and distribution of tire heat. If PLEXGARD™ is to be used in vehicle areas it is important that the concrete surface be textured, acid etched, and thoroughly rinsed clean prior to application. Wait a minimum of 48 hours before driving on PLEXGARD™ and for several weeks protect areas under hot tires with heavy corrugated cardboard.

Follow these instructions if pick-up occurs:

- 1) Acid etch pick-up area of bare concrete
- 2) Scrub while rinsing with clean water
- 3) Sand or rough up any glossy concrete
- 4) Wait 72 hours before driving on new PLEXGARD™, longer if temperatures are low or humidity is high
- 5) Protect areas under tires with heavy grade cardboard for 14 days

Limitations

PLEXGARD™ will not successfully coat smooth, hard, glassy, non-porous concrete that cannot be scratched with a coin, unless special methods are used to prepare the surface. The surface must be sandblasted or etched with a solution of muriatic acid.

PLEXGARD™ should not be applied if rainy weather is expected in a 6-8 hour period. Surface temperature must be at least 5°F (2.8°C) above dew point. Avoid application of PLEXGARD™ to hot concrete in direct sunlight 100°F (37.8°C)

or more. This leads to premature evaporation of water and other liquids from the applied coating and does not allow adequate time for proper bond and film formation to occur. For optimum application properties, bring material to 70-80°F (21.1-26.7°C) temperature range prior to mixing and application.

Test areas should always be applied when unfamiliarity of surface and/or product exists. This will determine if the surface is properly prepared, probable coverage and the method best suited for application. Apply the sample to the actual job surface using the application method, which will be used at the job site. Under some circumstances, the application of PLEXGARD™ can accentuate certain variations of the surface. Special consideration should be given to patches and surfaces of different porosity rates. Surface texture and varying porosity rates will accept PLEXGARD™ with varying intensities thus color changes are possible with one coat application.

Acid etching has been used widely to remove salts, laitance, and dirt from concrete. If acid etching is to be used, the surface should be pre-cleaned to remove any build-up of dirt or other contaminants. Acid will not penetrate a build-up of these materials. Correct acid etching procedure is as follows: Mix one part by volume muriatic or phosphoric acid into 10 parts water. Apply acid with plastic sprinkling container to a pre-dampened surface. After application immediately brush with a stiff bristle street broom or brush to spread the acid solution evenly over the surface, making sure to completely work the surface. Wait 10 minutes or until foaming stops, then thoroughly rinse/flush with clean water. The rinse/flush operation is most important in order to remove reactive products and loose cement and aggregate. If hard/smooth concrete still exists, a stronger acid solution may be required. Where stronger acid solutions are used, it is imperative that surface be rinsed thoroughly with a 10% ammonia and water wash to ensure proper neutralization.

NOTE: If not neutralized, acid will bleed through, and may cause delaminating or deterioration of the coating. The final pH of the cleaned, etched surface should be neutral (7) or slightly alkaline. Properly etched concrete produces a sandpaper finish that has the "teeth" to form a successful bond. If this is not achieved, repeat etching process. Proper protective clothing, such as goggles, rubber gloves and boots are recommended when handling acids.

Technical Data

PHYSICAL PROPERTIES

Pigment Volume	30% - 34%
Total Solids	50% - 56%
Viscosity	65-70 (KU)

ABRASION RESISTANCE

Abraded Under Water with 220 Grade Sandpaper	
After 24 hours dry	5,000 cycles
After 14 days dry	5,600 cycles

BLISTER RESISTANCE

No evidence of blistering after being water soaked for 2 hours after a 24-hour dry period.

COEFFICIENT OF FRICTION TEST RESULTS

ASTM C 1028

Surface Prep	Heel Material	DRY¹	WET²
Uncoated	Leather	0.62	0.66
	Nylon	0.59	0.63
	Neolite	0.62	0.70
	Average:	0.61	0.66
Coated- PLEXGARD™	Leather	0.90	0.96
	Nylon	0.87	0.94
	Neolite	0.92	0.77
	Average:	0.90	0.89

¹ Dry Surface Conditions: Textured Concrete Substrate

² Wet Surface Conditions: Damp-No Puddles, Textured Concrete Substrate

Coverage

- Porous Surfaces and first coats - 200 to 250 ft² per gallon (4.9-6.1 m²/L).
- Smooth Surfaces and second coats - 250 to 300 ft² per gallon (6.1-7.4 m²/liter).

Clean-Up & First Aid

Clean-Up

In case of spillage, sweep into appropriate container, and dispose of in accordance with applicable local regulations. Flush area with large amounts of water. Wash tools and equipment with soap and hot water while PLEXGARD™ is still liquid.

First Aid

Inhalation - Remove to fresh air.

Eye and Skin Contact - Promptly wash eyes with plenty of water for 15 minutes. Consult a physician if irritation persists. Wash skin with soap and water.

Ingestion - Drink plenty of water, may cause irritation of the mouth, throat, or stomach. Seek medical attention for all overexposures.

KEEP OUT OF REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY.