



## GUARD EP

GUARD EP is a solvent-free, high-build epoxy floor coating system. Guard EP is designed for a high abrasion resistance, chemical resistance, and seamless flooring finish system. It can be applied to a smooth or rough finish with anti-slip grains.



### ADVANTAGES

- Simple and fast installation
- Long pot-life, especially suitable for hot climate
- Excellent abrasion and chemical resistance
- Low VOC
- Very low odor
- Low permeability
- High mechanical strength
- Durable, Easy maintenance
- Superior substrate adhesion
- Available in wide variety of colors

### USES

- Manufacturing facilities
- Laboratories
- Chemical storage facilities
- Workshops
- Warehouses
- Car Showrooms
- Offices & Retail outlets
- Parking areas and Garages
- Schools, Malls, Recreation halls

### MANUFACTURER

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## Packaging:

GUARD EP is available in different pack sizes.

### Two-components units

(Part A -pigmented & Part B) = 26.2 Kg (16.2 L) set.

### Three-component units

(Part A- Neutral, Part B & Color Paste):  
7.3 Kg (4.5 L) set.

### Suitable Substrates

- Concrete
- Properly prepared existing floor coating

## Approximate Coverage

System:

GUARD PRIME EPM Available as two-component units  
(Part A & Part B) = 25 Kg (16.7 L) set.

Coverage: 0.3 Kg/ m<sup>2</sup> / Coat.

**Anti-slip Grain:** Available in 25 Kg paper bags.

Coverage: 0.5 - 0.6 Kg/ m<sup>2</sup> or as per the slip-resistance texture required.

### GUARD EP:

Coverage: 0.20 L/ m<sup>2</sup>/coat @ 200 mics DFT.

*Note: Coverage may vary depending on the substrates, profile, texture, application techniques, and film thickness. It is therefore recommended to carry out a mockup to estimate the actual coverage based on site conditions.*

## Shelf Life

**GUARD EP:** 12 months. The temperature of the storage area should be between 8°C and 35°C, to avoid excessive heat and freezing of the material.

This product must be stored in its original packaging on pallets in clean, dry, ventilated areas, and out of direct sunlight.

## Limitations

Substrate and air temperature must be between 10°C (50°F) and 35°C (95°F).

The substrate temperature must be 3°C (5°F) above the dew point.

The prepared surface should have a nominal tensile strength of 225 psi (1.6 MPa) per ASTM D7234.

Moisture vapor emission rate (MVER) must be under 3 lbs. /1000 ft<sup>2</sup> / 24h. The relative humidity of the slab must not exceed 75% as tested per ASTM F2170.

For substrates having moisture content > 5% when tested with a moisture meter, two coats of Guard Prime EPM are recommended as a moisture barrier coating.

*Note: Before application, inspect the existing substrate to identify any hollows or non-solid areas. All non-solid concrete should be removed and repaired. The coating must be applied over sound, solid, and suitable concrete substrate.*

## TECHNICAL DATA

Properties	Methods	Values
Mix Density	-	1.60 ± 0.05
Pot Life	-	35 - 45 min
Compressive Strength	ASTM C579	≥ 70 MPa
Flexural Strength	ASTM C580	≥ 40 MPa
Tensile Strength	ASTM D638	≥ 20 MPa
Bond strength on concrete	ASTM D4541	> 2.5 N/mm <sup>2</sup> , concrete failure
Water Absorption	ASTM C413	< 0.05%
VOC	ISO 11890-2	< 50 g/L
Abrasion resistance: 1kg /CS17/1000 cycles	ASTM D4060	< 0.080 gm
*Chemical resistance	ASTM C267	Resistant to various chemicals
Thermal Tolerance (Continual)		< 50 °C
Thermal Tolerance (Intermittent)		< 75 °C
Maximum time between two coats	-	36 hours
Foot Traffic	-	24 hours
Light Traffic	-	48 hours
Full Cure	-	7 days

*Note: The data in the above table are typical values tested in laboratory conditions @ 25 ± 2 °C & 55 ± 5 % Relative humidity. \*Consult the Laticrete Technical team for the list of chemicals.*

## INSTALLATION

### Surface Preparation

Concrete must be prepared mechanically to remove all surface contamination. Use one of the following tools to mechanically profile the concrete surface to achieve a homogenous ICRI CSP 2 or 3:

- Diamond Grinding Machine
- Shot Blast Machine

Honeycombs or voids exposed due to mechanical preparation must be treated with the appropriate filler from our selection of complementary products.

### Cracks & Joints

Inspect the substrate to identify all moving and non-moving cracks/joints. Method of repair for moving cracks/joints should be designated by local onsite project engineer. All non-moving cracks/joints should be addressed and infilled prior to the application of surface coating. Epoxy-based repair product **LATICRETE® MASTIC** is recommended.

## Application

Ensure the surface is prepared and completely dry, with moisture content when tested with a moisture meter < 5%.

## Priming

Priming is not normally required if the substrate is Sound, good quality, and nonporous. For a highly porous and friable substrate, a primer coat of **Guard Prime EPM** is recommended. For more details, please refer to the Guard Primer EPM data sheet.

## GUARD EP Mixing

Two components:

Mix Part A first to homogenize any settlement then add the entire content of Part B and mix for 3 mins to a uniform color.

Three components:

Mix Part A and color paste for 2 minutes to a homogenous and uniform color. Next, add the entire content of Part B and mix for a further 1 minute. After mixing, apply the mix within its pot life depending upon site conditions.

*Note: Never carry out partial mixing. Do not thin the mix with solvent or thinner.*

## SMOOTH FINISH APPLICATION

The first layer of GUARD EP should be applied using a good quality medium pile roller, suitable for epoxy application or squeegee to achieve a continuous coating.

Ensure the film thickness with a wet film thickness gauge to achieve 200- 250 microns WFT (wet film thickness).

Apply a second coat after a hard dry stage of the first coat i.e. 12 – 24 hours. depending upon site conditions, but not exceeding 36 hours. For > 36 hours lightly sand the first coat and then apply a second coat.

## ANTI-SLIP APPLICATION

### 1st Layer

For a slip-resistant textured top, apply the 1st coat of GUARD EP and broadcast the Anti-slip Grain-1 evenly to achieve the desired texture and roughness.

For light slip resistance apply slightly less grains, for dense and high slip resistance apply in excess so that the coat of GUARD EP is fully covered.

When the coat has hard dry (12 - 24 hours depending upon ambient conditions), the excess aggregate should be vacuum cleaned from the surface.

The second coat can be applied with a medium pile roller. Care should be taken to ensure that a continuous film is achieved as quickly as possible

## 2nd Layer

The topcoat can now be applied with a medium pile roller. Care should be taken to ensure that a continuous film is achieved and the rough surface, caused by the

aggregate, is completely sealed. This topcoat must be applied within 36 hours after hard dry of the first coat (i.e. 12 – 24 hours).

*Note: Traffic line marking can be carried out after 3 days of the final coat application. For exterior application, one coat of Guard PU (UV resistant polyurethane coating) is recommended as a topcoat.*

## CLEANING AND WASTE DISPOSAL

All tools and equipment shall be cleaned immediately after use with a cleaning solvent or suitable thinner. Dispose of empty containers, waste solvents, and other used items as per local government regulations.

Spillages should be absorbed with sand or sawdust and disposed of as per local regulations.

Refer Material Safety data sheet.

Note: Mock-ups and field test areas are required to validate performance and appearance-related characteristics (including but not limited to color, inherent surface variations, wear, anti-dusting, abrasion resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the coating system.

Variability in job site conditions (including but not limited to surface preparation, sunlight, humidity, dew point, temperature, etc.) during the application of LATICRETE products may lead to fisheyes, blistering, pinholes, wrinkling, or outgassing of air in the concrete and are not product defects.

## AVAILABILITY AND COST

### Availability

LATICRETE® materials are available worldwide. For distributor information, please contact LATICRETE Telephone: For on-line distributor information, visit [www.laticrete.com](http://www.laticrete.com)

**Cost:** Contact a LATICRETE® closer distributor to obtain complete information and cost.

## WARRANTY

The supplier warrants this product will not deteriorate under normal conditions and use, the warranty validity of one (1) year. The product is subject to the terms and conditions stated in the LATICRETE® Product Warranty. Please consult our technical support for further information

## TECHNICAL SERVICES

### Technical assistance

For information contact:

[enquiry@laticrete.me](mailto:enquiry@laticrete.me)

### Technical and safety literature

To obtain technical and safety literature, please visit our website at [www.laticrete.com](http://www.laticrete.com)

**Warning:** The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE® is unable to directly control the installation conditions and modalities of application of products, do not assume any liability arising from their implementation. Those who want to use the LATICRETE® products must conduct adequate tests to determine the site specifications. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation method and site conditions.

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