



## FLOW EP1

FLOW EP 1 is a flowable, solvent-free epoxy floor topping designed for application at thicknesses ranging from 1 to 4 mm. Flow EP 1 is based on special epoxy resin and curing agent combination. It provides high gloss, high abrasion resistance, high compressive strength and a chemically resistance floor topping.



### ADVANTAGES

- Simple, fast installation
- Long pot-life, especially suitable for hot climate
- Environment friendly
- Excellent abrasion and chemical resistance
- Dense, impervious, seamless floor
- High reflective surface high impact resistance.
- Durable, Easy maintenance
- Available in wide variety of colors

### USES

- Food & beverages plants
- Industrial floors
- Schools & Hospitals
- Industrial manufacturing plants
- Offices & Showrooms
- Kitchens & laboratories
- Loading & Unloading areas
- Chemical plants & Aircraft Hangers

### MANUFACTURER

**LATICRETE Middle East LLC.**  
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### PACKAGING

**Flow EP 1** is available in two pack sizes.

- 4.5 liter set: Net weight- 7.54 kg: Part A-Base (neutral): 6.62 kg, Part B-Hardener: 0.74 kg & Part C- Color paste: 0.18 kg.
- 16 liter set: Net weight- 26.8 kg: Part A-Base (neutral): 23.53 kg, Part B-Hardener: 2.63 kg & Part C- Color paste: 0.64 kg.

### Suitable Substrates

- Concrete
- Properly prepared existing floor coating

### Approximate Coverage

#### GUARD PRIME EPM

0.3 kg/sqm/coat.

Actual coverage may vary due to texture and porosity of substrates.

### Flow EP 1

1 sqm / litre / mm thickness.

*Note: Actual coverage may vary due to texture, undulations, and porosity of substrates.*

### Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for one year if stored off the ground in a dry area. Extreme storage conditions will reduce the shelf life.

**Storage:** Store in dry and conditioned temperature above 8°C and below 35°C.

### Limitations

Substrate and air temperature must be between 10°C (50°F) and 35°C (95°F). 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. If there is a moisture emission situation in excess of the above rate, we recommend using GUARD PRIME EPM two coats as a moisture barrier coating prior the Flow EP1.

Flow EP1 is not meant for exterior applications, due to inherent yellowing tendency of epoxy resin.

*Note: Prior to application, sound out existing substrate to identify any hollows or non-solid areas. All non-solid concrete should be removed and repaired. It is very important that the finished product is applied over sound, solid, and suitable concrete substrate and/or coating.*

### Cautions

#### Health and safety

- Follow the warning signals in packaging & SDS.
- Wear protective gloves, clothing, safety shoes, and eye wear.
- May cause skin irritation.
- May cause an allergic skin reaction. If rash occurs, remove individual from the work area and seek physician's care for dermatitis.
- May cause serious eye irritation.

- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Do not attempt to wash and reuse it. This material can be removed with soap and water. Do not use acetone.
- If swallowed, do not induce vomiting. call a physician immediately.
- Keep out of reach of children.
- Consult SDS for more safety information.

### Chemical resistance

Fully cured **FLOW EP 1** coating is resistant to many chemicals. Please ask for a detailed chemical resistance table from us.

### TECHNICAL DATA

| Properties                                 | Methods    | Values                                     |
|--------------------------------------------|------------|--------------------------------------------|
| Mix Density                                | -          | 1.65 ± 0.05                                |
| Pot Life                                   | -          | 30 - 40 min                                |
| % NVM                                      | ASTM D2369 | 98% approx                                 |
| Compressive Strength                       | ASTM C579  | ≥ 70 MPa                                   |
| Flexural Strength                          | ASTM C580  | ≥ 35 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%                                    |
| Abrasion resistance: 1kg /CS17/1000 cycles | ASTM D4060 | < 0.080 gm                                 |
| *Chemical resistance                       | ASTM C267  | Resistant to various chemicals             |
| Thermal Tolerance (Continual)              |            | < 60 °C                                    |
| Thermal Tolerance (Intermittent)           |            | < 75 °C                                    |
| Foot Traffic                               | -          | 24 hours                                   |
| Light Traffic                              | -          | 48 hours                                   |
| Full Cure                                  | -          | 7 days                                     |

### 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 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 application of surface coating. Epoxy based repair product Laticrete MASTIC and/or fast setting Cementitious repair product NXT PATCH is recommended.

## APPLICATION

Ensure surface is prepared and completely dry.

**Priming:** All surfaces should be primed with PRIMER EP before application of FLOW EP1.

## GUARD PRIME EPM

**MIXING:** Mix full unit as supplied. Always mix entire Part A well with entire Part B to ensure a complete reaction. Mix thoroughly for about 2- 3 minutes. The mixture and the application must always be done in the shade to avoid high product or surface temperatures.

**APPLICATION:** Immediately after mixing, GUARD PRIME EPM should be applied in a thin continuous film using stiff bristle brushes or paint rollers. Do not apply extra and allow to puddles.

## FLOW EP1

### 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.*

## APPLICATION

FLOW EP 1 can be spread to the planned thickness (1 mm to 3 mm) using a serrated trowel. Slowly and even force of the trowel. Immediately after spreading, using a spike roller the entire area should be rolled, to remove any trowel marks, and to remove any entrapped air. A light rolling will also to make the surface more even.

## CLEANING AND WASTE DISPOSAL

All tools and equipment shall be cleaned immediately after use with "Solvent X". Dispose empty containers, waste solvent, other used items as per local government regulation. Spillages should be absorbed with sand or sawdust and disposed of as per local regulations. Consult Safety data sheet.

*Note: Mock-ups and field test areas are required in order 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 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 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 [enquiry@laticrete.me](mailto:enquiry@laticrete.me)

**Warning:** The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE 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.