



# EmO Guard UR

**Hard wearing, skid resistant, flexible Car Park Flooring system**

## Uses

EmO Guard UR is a modified Epoxide urethane system designed to provide an added level of protection to new and existing, trafficked areas such as:

- Car park decks
- Car park ramps
- Aircraft hangars
- Transport depots
- Service centers, garages
- Workshops

## Typical Applications & Advantages

- Suitable for all zones in a car park
- Seamless and water tight
- Solvent free
- Rapid application, reliable and safe

## Product Description

EmO Guard UR is a multi-layer solvent free epoxide urethane flooring system comprising a primer, Anti slip grains and a flexible topcoat. All components are applied in the liquid phase and react chemically to form a tough, flexible, waterproof protective surface. **An optional Wear Course based on aliphatic polyurethane with UV stability** is available for exposed areas.

## Standards compliance

Resistant to a variety of organics and solvents (ASTM C 957) like petrol, diesel, skydrol, brake fluid, engine oils and kerosene. Comply with ASTM D 412 for pull off test.

## Typical Properties

The values given below are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Complete cure @25°C @35°C  
 : 7days 5 days

### Tensile Strength

@35°C 7 days : 13N/mm<sup>2</sup>

Elongation : 50%

Tear Resistance : 20 N/mm

Water absorption : Nil

Shore 'A' hardness : 85

Over coating time @35°C: 3 hours

## Chemical Resistance

EmO Guard UR is resistant to a wide range of chemicals including:

- Petrol, Engine oil, Jet fuel, Skydrol, Brake fluid, Mineral spirit
- Diesel, Mild acids
- Detergents etc.

## Technical Support

ELMRR provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

## Instructions for Use

### Surface Preparation:

New concrete surfaces should have reached 80% of their intended physical properties – generally only achieved after a minimum curing period of 28 days. Existing concrete surfaces must be prepared to provide a clean sound substrate. Ensure the concrete foundation surface is dimensionally stable and free of dirt, dust, oil, laitance, paint, curing compounds etc. Bolt holes and fixing pockets should be free from any dirt or debris. If possible a roughened surface is preferable to smooth surfaces. Metal surfaces must be free from rust, loose scaling and paint. Grit blasting can be adopted if necessary. Shuttering should be covered with polyethylene to ensure a clean release.

### Limitations

EmO Guard UR should not be applied on to surfaces which are known to or likely to suffer from rising damp or have a relative humidity greater than 80% as measured in accordance with BS 8203 Appendix A or by Hammond concrete/mortar moisture tester type COCO.

In conditions of high relative humidity i.e. 85-90%, good ventilation conditions are essential. Substrate temperature should be at least 3<sup>o</sup>c above dew point.

Do not proceed with application if precipitation is imminent, or temperature is expected to drop below 7<sup>o</sup>c within 24 hours of application.

### High temperature working

It is suggested that, for temperature above 35<sup>o</sup>c, the following guidelines are adopted as good working practice:

- i. Store material in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- ii. Keep equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come in direct contact with the material itself.
- iii. Try to eliminate application during the hottest times of the day.
- iv. Make sufficient material, plant and labor available to ensure that the application is a continuous process.

**Mixing:** Do not commence mixing until all surface preparation, cleaning and shuttering is complete. **EmO Guard UR** is supplied in pre-weighed units. Add the reactor to the base in a suitable forced action mixer; alternatively use a slow speed drill and paddle. Continue mixing until a completely homogenous material is obtained.

### Application

#### **Primer**

Apply EmO Guard UR Primer to the prepared surface at an application rate in the range of 0.2 to 0.3 ltr/m<sup>2</sup>. Quantity will depend on surface texture and porosity. Whilst EmO Guard primer is still wet, blind with Anti Slip grain at an estimated rate of 0.1 to 0.5 kg/m<sup>2</sup>, leave to dry for 16 hours @ 35<sup>o</sup>c. Prior to the removal of excess anti slip grain ensure that the grains are firmly embedded in the primer.

### **Topcoat**

Apply EmO Guard UR topcoat to the primed surface at an application rate of 0.2 to 0.3 ltr/m<sup>2</sup>

Prior to trafficking allow the following cure periods:

Foot traffic: 24 hrs@25<sup>0</sup>c or 18 hrs@35<sup>0</sup>c

Vehicle traffic: 5 days@25<sup>0</sup>c or 72 hrs at 35<sup>0</sup>c

### **Estimating**

#### **Supply for 20m<sup>2</sup>**

EmO Guard UR Primer : 5 ltr pack

Top Coat : 5 ltr pack

Anti slip grains : 10 kg bags

Wear Course : 5 ltr Pack

### **Coverage**

Primer : 0.2 to 0.3 ltr/m<sup>2</sup>

Anti slip grains : 0.2 to 0.3 kg/m<sup>2</sup>

Top coat : 0.2 to 0.3 ltr/m<sup>2</sup>

Wear Course : 0.2 to 0.3 ltr/m<sup>2</sup>

### **System Thickness**

Estimated system thickness is 0.8 mm to 1mm depends on surface texture.

### **Equipment care**

Clean all equipment promptly using ELMRR Epoxy Solvent. Cured material will have to be mechanically removed.

### **Important note**

Elmrr endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as Elmrr has no control over the conditions of use and the competence of any labor involved in the application are beyond our control.

As all Elmrr technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.

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