

# Epo Gard HD 5

## Epoxy Topping & PU Coat Flooring Data Sheet

**Thickness Applied:** 5mm thick Heavy-Duty Epoxy Mortar Topping with Polyurethane Finish Flooring

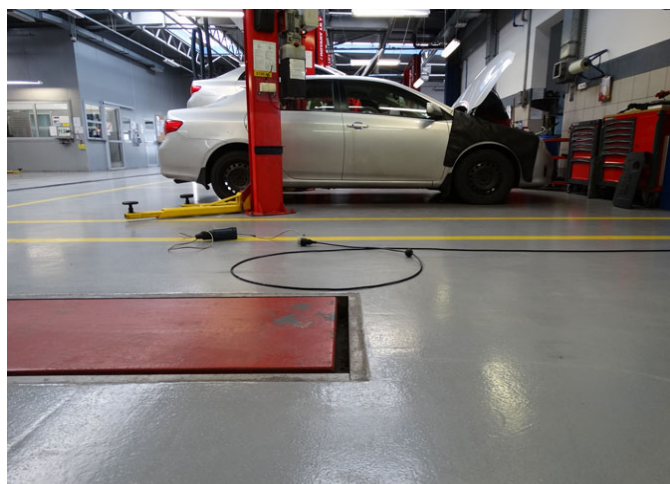
**Used Area Application**

Solvent-free epoxy resin based with silica sand [Epoxy Mortar Topping with Polyurethane Layer]. High performance chemical resistance and mechanical properties. Highly fluid, phenol-free, modified cycloaliphatic polyamine hardener easy processing, short curing times properties even at low temperatures (as of 5°C) and high humidities. (high hardness and flexibility values) and color stability.

Breweries, Commercial Kitchens, Battery Manufacturers, Dairy Industries, Engineering Workshops, Food & Drink Industries, Electronic Industries, Palm Oil Industries, Plating Industries, Rubber Industries, Pharmacy Industries, Multi Storey Car Park & Vehicle Car/Truck Service Centre, etc.

**Advantage & Properties**

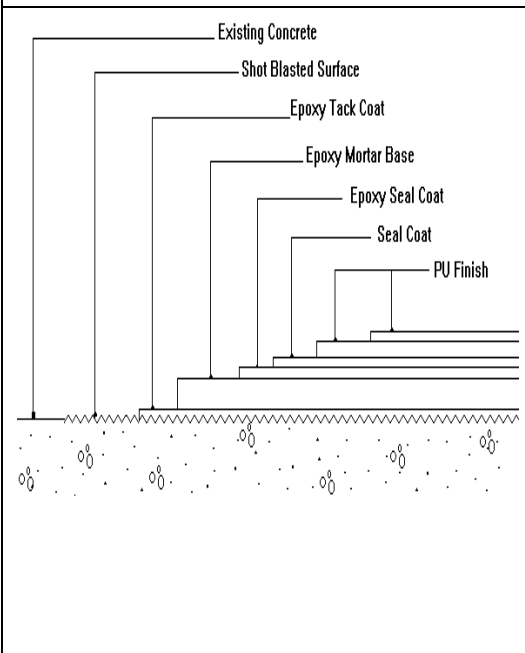
The specific advantage offered by Epoxy with Polyurethane Solvent Free Topping Mortar Layer. Very good adhesion, the system recommended for external/expose type or internal building concrete can also be applied on other mineral substrates.



Vehicle Car Service Centre  
Matt with Orange Peel Finish



Vehicle Car Service Centre  
Matt with Orange Peel Finish

System Structure	Process Application System	Product Details & Consumption
 <p>Existing Concrete Shot Blasted Surface Epoxy Tack Coat Epoxy Mortar Base Epoxy Seal Coat Seal Coat PU Finish</p>	Existing or New Concrete	
	Degreasing <i>[if necessary]</i>	Degreaser
	Shot Blasting or Scarification the Concrete Surface	Special Equipment Machine
	Prime Layer [Tack Coat]	<b>Epo Bond Primer # 0.30/kg/m2</b>
	Mortar Base [High Strength Mortar]	<b>Epo Bond Mortar # &gt;9.85/kg/m2</b>
	Seal Coat with Clear Color [Grout Coat]	<b>Epo Seal Coat "Clear" # 0.80/kg/m2</b>
	Seal Coat with Color [Grout Coat] <i>[if necessary]</i>	<b>Epo Seal Coat "Color" # 0.80/kg/m2</b>
	Polyurethane Color [Finish Layer] Matt System OR Polyurethane Color [Finish Layer] Glossy System	<b>PUR Guard FC # 0.15/kg/m2 [1 Layer]</b> <b>PUR Guard FC # 0.15/kg/m2 [2 Layers]</b> Matt Finish Smooth or Orange Peel OR Glossy Smooth or Orange Peel

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### Mechanical Performance of Properties

**Epo Gard HD 5**  
After 28 days cure @ 25°C

Compressive Strength	(ASTM C-579)	11000psi (75 [ $\pm 5$ ] MPa)
Tensile Strength	(ASTM C-307)	1650psi (11.4 [ $\pm 3$ ] MPa)
Flexural Strength	(ASTM D-790)	4200psi (29 [ $\pm 8$ ] MPa)
Hardness	(ASTM D-2240/Shore D)	87
Abrasion Resistance	(ASTM D-4060, CS-17 Wheel)	0.1g max wt . Loss @ 1000g loading
Bond Strength	(ASTM D-4541)	>400psi (100% concrete Failure)
Flexural Modulus of Elasticity	(ASTM D-790)	2.0 x 10 <sup>6</sup> psi
Coeff. of Expansion	(ASTM E-831)	<b>3.5 x 10-in/in°C</b>
Temperature Resistance		<b>60°C</b>
Water Absorption		<b>0.2%</b>

**Ultraviolet Resistance:** Not reflection to eye and no yellowing after 100 hours.

- ❖ Adhesion is always good on mineral substrates surfacing.
- ❖ Very good flow mechanical properties following optimal cure.
- ❖ Good in no dust from substrate coatings easy to clean, improved visibility.
- ❖ Excellent of chemical resistance, Good on hygienic floor and wall surfacing.
- ❖ Adhesion promoting primers between old with new concrete.
- ❖ Non-toxic, the coating have been cured applied on health floor.

### Preparation

**New Concrete Floor Slab & Existing Concrete Floor** must cured at least 28 days and have with minimum Compressive Strength of 5,000 psi [35 Mpa]. Those cement slurry, plaster droppings, etc. must be remove, the surface of concrete free of oil, grease, and other loose particles and contamination's.

### Mixing:

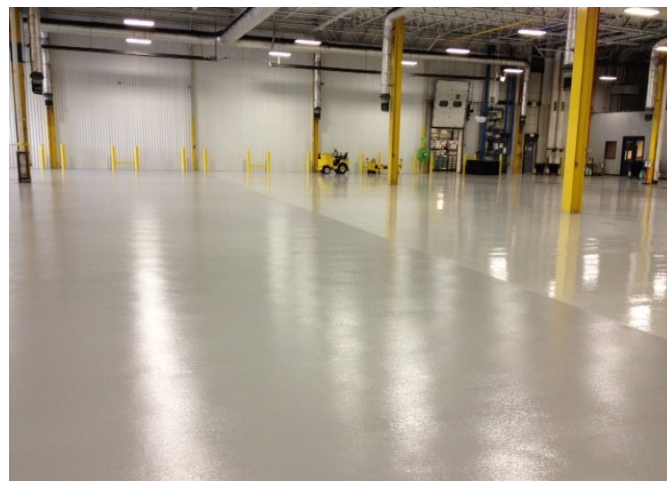
Epoxy Primer "**Epo Bond Primer**" [2K system]  
 Epoxy Mortar "**Epo Bond Mortar**" [3K system]  
 Epoxy Seal Coat "**Epo Seal Coat**" Clear Coat [2K system]  
 Epoxy Seal Coat "**Epo Seal Coat**" Color Coat [3K system] **Optional**  
 PU Coat "**PUR Guard FC**" Orange Peel/Smooth Matt & Glossy

Mix materials with low speed drill and paddle for approximately 2-5 minutes. Insure a thorough mix. Never mix more material than can be used in thirty (30) minutes. Do not apply Epoxy when ambient or temperatures are below 50 °F



School Purpose Hall [Glossy Finish]

### Method of

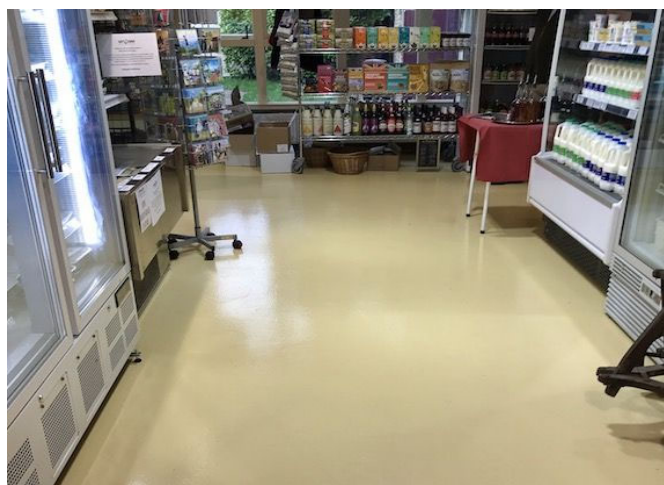


Factory Industrial Floor Matt Orange Peel & Glossy

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<b>Application</b>	<p>Step 01 Scarification by milling machine or sand-blasted to SS 2 Standard and de-rust to ST 2 Standard 50mm rich primer is recommended for priming, vacuum all dust and clean with water. New concrete shall be at least of aged 28 days before coating. Old concrete must be cleaned of dust or other contamination with a thorough floor scrubbing.</p> <p>Step 02 Apply layer of <b>Epo Bond Primer</b> by roller or spray, while still wetting immediately apply <b>Epo Bond Mortar</b> by power trowel and screeds exhibit a very flat finish, can be kept in spotless hygienic condition and are of attractive appearance. Screed thickness usually varies from 5.00 mm thick and allow to dry for 12 hours.</p> <p>The epoxy mortar once cured, using diamond grinder machine to preparation the surfaces, made it even and flat.</p> <p>Step 03 Apply <b>Epo Seal Coat [Clear Coat]</b> layer by steel trowel and screeds exhibit a very smooth and flat finish, can be kept in spotless hygienic condition and are of attractive appearance. Screed thickness usually varies from &gt;0.80/kg/m<sup>2</sup>, allow to dry for 12 hours.</p> <p><b>Optional</b> Apply <b>Epo Seal Coat [Color Coat]</b> layer by steel trowel and screeds exhibit a very smooth and flat finish can be kept in spotless hygienic condition and are of attractive appearance. Screed thickness usually varies from &gt;0.80/kg/m<sup>2</sup>.</p> <p>Step 04 Apply layer of <b>PUR Guard FC</b> [Matt Finish System Smooth or Orange Peel Type] by roller or spray, and after 12 hours the finished coat has been cured.</p> <p>OR Step 04 Apply layer of <b>PUR Guard FC</b> [Glossy Finish System Smooth or Orange Peel Type] by roller or spray, and after 12 hours the finished coat has been cured.</p>
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Food Drinking Flooring



Food Drinking Flooring [Hot Cook Water Area]



Gas & Oil Factories, Hot Pipe & Floor Area



Warehouse Flooring

### Safety Requirements:

Products contain epoxy resin, amines and isocyanates. Do not take internally. May irritate eyes and skin. Protective clothing and gloves are recommended to prevent sensitization to these materials. In case of eye contact, flush with soap and clean water and seek medical attention.

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