

# ZeraDur™ 100

## High Performance Epoxy Floor Coating

### DESCRIPTION

ZeraDur™ 100 is a two-component, 100% solids epoxy coating that provides an aesthetically pleasing durable finish for interior concrete floors. Available in slow and regular setting as well as wall-grade versions.

### WHERE TO USE

ZeraDur™ 100 is recommended for use in areas with light to medium duty traffic and where there is the possibility of exposure to alkali, mild acids, cleaners and common acids.

ZeraDur™ 100 is ideal for hospitals, laboratories, locker rooms, washrooms, dealership showrooms, institution buildings, fire stations, garage floors, aircraft hangers, warehouse facilities, storage areas, recreational complexes, studios, auto body and workshops, etc.

### BENEFITS

- 100% solids, with low odour, zero VOC's
- Easy to apply in 2-coat application
- Good gloss and colour retention
- Excellent bond to concrete and steel
- Good wear resistance
- Resistance to battery acid (providing it is to be cleaned within 24 hours)
- Excellent water spotting resistance
- Does not support growth of bacteria or fungus
- Approved by the "Canadian Food Inspection Agency" to be used in food processing facilities
- Available in clear and variety of standard colours

### Handling and Curing Properties @ 23°C (74°F)

Mix Ratio, by volume	2 parts A: 1 part B
Viscosity (Mixed)	900-1000 cps
Solids Content	100 %
Mixed Weight (Density)	1.2 kg/litre (10 lb./US gal)
Pot Life	30 minutes
Thin Film Set Time	12-16 hours
Foot Traffic	16-24 hours
Light Vehicular Traffic	24 hours
Normal Vehicular Traffic	36 hours
Full Cure and Maximum Resistance	7 days
Hardness (Shore D)	80

Tensile Elongation	10% @ break
(ASTM D638-86)	
Tensile Strength	20 Mpa (2900 psi)
(ASTM D638-86)	
Hardness (Shore D)	82
(ASTM D2240-86)	
Impact Resistance	pass 160 in/Ib.
(ASTM D2794)	
Abrasion Resistance (ASTM D4060)	84mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

### SURFACE PREPARATION

ZeraDur™ 100 should be applied over clean, sound, dust free surfaces. For best results, surface should be prepared as follows:

#### Concrete (New):

Shot blasting or equivalent to remove surface laitence, curing compounds or form oils. Concrete should be minimum 28 days old or have 3% or less moisture content. Moisture content can be determined using test method ASTM D4263.

#### Concrete (Old):

Remove oil, grease, dirt and any unsound concrete using a combination of commercial degreasers, alkaline wash, shot blasting or diamond grinding. A combination of acid-etching and power wash can also be used. Cracks and surface defects should be repaired prior to the application of coating.

**NOTE:** ZeraDur™ 100 is a self-primed product that requires no primer when the concrete substrate is dry. It is applied in 2 coat application over a properly prepared concrete or one coat over an existing epoxy floor.

#### Steel:

Remove greases, oils and contaminants from surfaces and sandblast to white metals. Prime using ZeraPrime™ 100SC.

### AREA PREPARATION

For optimal performance, both the coating and substrate should be maintained at 18° to 30° C (68 to 86°F) for 24 hours prior to beginning work. The same temperature range should be maintained during mixing, application, and cure.

Application in direct sunlight and rising surface temperatures may result in blistering of materials due to expansion of entrapped air or moisture in the substrate. Concrete that has been in direct sunlight must be shaded 24 hours prior to application and remain shaded until after the initial set.

### APPLICATION

The mixing equipment used to mix the coating must be clean and free of any contaminants that may be present in the equipment from previously used products.

Two coats are recommended: one prime coat and one top coat. The first coat is applied at 5 mils whereas the second coat is applied at 10 mils.

- Pre-mix component “A” of **ZeraDur™ 100** first to eliminate the possibility of settlement. Pour all of the liquid from Part B into a Part A container.
- Mix thoroughly using a slow speed ½ inch drill motor with “jiffy” type blade for two minutes (minimum). Scrape the sides of the container and continue mixing until the colour is uniform.
- Immediately pour all mixed coating onto the edges of prepared floor and spread the material evenly with a flat squeegee. Using a lint free 6 mm nap roller back roll the applied material to provide an even coat. Care should be taken not to over-roll the material as air may become entrapped in the coating.
- Apply the second coat in the same manner as the first (a notched squeegee may be used in the second coat to produce a thicker film)
- if a non-slip sanded surface is required, a properly graded, dry, contaminant free grit should be broadcast on the surface of the top coat and back roll to encapsulate the aggregate onto the coating..
- Allow to cure thoroughly overnight (16 hours) before exposing to foot or light duty traffic. It requires 24 hours for vehicular traffic and 7 days for full service. Keep water & detergent away from the floor until fully cured.

### LIMITATIONS

- Do not apply **ZeraDur™ 100** if the substrate and ambient temperatures are below 10°C (50°F)
- Do not apply the topcoat less than 10 mils as an orange peel finish may appear or bubbling may occur due to insufficient material to self level.
- Do not leave mixed material (Part A & B together) in the container for an extended amount of time; it will harden and warm up and smoke.
- Not recommended for areas subjected to steam cleaning , harsh chemicals or heavy impact
- Do not use over existing floor without testing both the intercoat adhesion as well as the adhesion of the existing floor to concrete
- Not recommended as a water-proofing coating in suspended boiler rooms or commercial parking garages
- Do not apply in areas where the humidity is greater than 85%

- May discolor under direct constant exposure to UV, and due to some chemical exposures
- Do not use on slab-on-grade without vapour barrier

### THEORETICAL COVERAGE

Neat: 15 mil dry film thickness:

Prime Coat: (5 mils): 8 m<sup>2</sup>/litre (325 f<sup>2</sup>/U.S. gallon)

Second Coat (10 mils): 4 m<sup>2</sup>/litre (160 f<sup>2</sup>/U.S. gallon)

### PACKAGING

11 litre/2.9 U.S. gal. units

56.7 litre/15 U.S. gal. units

### CLEAN UP

Clean all equipment and installation tools immediately with xylene.

### SAFETY PRECAUTION

Consult the Material Safety Data Sheet (MSDS) for specific instructions.

### STORAGE

Store in a heated warehouse. Do not freeze.

### SHELF LIFE

1 year from the date of manufacture if kept in original unopened containers

### WARRANTY

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