

ZeraDur™ 110 LT

Low Temperature Cure Epoxy Floor Coating



DESCRIPTION

ZeraDur™ 110LT is highly advanced two-part, 100% solids, epoxy floor coating, and is designed to cure down to zero ° C (32 ° F) and provide an extremely rapid room temperature cure. Its low viscosity contributes to easy handling, excellent substrate wetting, and the development of strong bonds to a variety of substrates including damp concrete and metals. ZeraDur™ 110LT cures to blush-free high gloss finish even under cold damp conditions. The coating has good chemical resistance.

WHERE TO USE

ZeraDur™ 110LT is used for applications in cool weather (fall/winter) where other coating systems would require preheating of the substrate or enclosure and application of external heat for curing purposes. ZeraDur™ 110LT is highly recommended for unheated warehouses facilities, which precludes the use of preheating/external heat.

ZeraDur™ 110LT is ideal for hospitals, laboratories, cold rooms, institutional buildings, garage floors, storage areas, and etc.

BENEFITS

- 100% solids, with low odour, zero VOC's
- Excellent rapid cure properties
- Ideal for applications of non-heated warehouses
- Excellent adhesion to damp concrete and steel
- Good wear resistance
- Good chemical resistance
- Excellent water spotting resistance
- Good early moisture resistance; blush free finish
- Does not contain benzyl alcohol or nonyl phenol

HANDLING & CURING PROPERTIES

Mixing Ratio, by volume	2 part A: 1 part B
Viscosity (Mixed) @ 23°C (77°F).....	650 cps
Solids Content.....	100%
Mixed Weight (Density)	1.15 kg/litre (9.6 lb./US gal)
Pot Life	20 mins
Thin Film Set Time @ 0°C (32°F)	12-16 hours
Foot Traffic @ 0°C (32°F).....	16 hours
Light Vehicular Traffic @ 0°C (32°F)	36 hours
Full Cure and Maximum Resistance	7 days

Cured Properties:

Tensile Elongation	10% @ break (ASTM D638-86)
Tensile Strength	26 Mpa (3770 psi) (ASTM D638-86)
Hardness (Shore D)	82 (ASTM D2240-86)
Abrasion Resistance (ASTM D4060)	68mg loss Taber Abrasion, C-17 Wheel, 1000 cycles

SURFACE PREPARATION

ZeraDur™ 110LT should be applied over clean, sound, dust free surfaces. For best results, surface should be prepared as follows.

Existing Epoxy Floor:

Make sure the floor is clean and free from oil or grease. The floor must be sanded with 80-100 grit to provide profile for adhesion. Ensure that the existing floor is sound and adhered well to the concrete. Epoxy coating would not adhere to alkyd or oil based coated floors.

Concrete (New):

Shot blast or equivalent to remove surface laitance, curing compounds or form oils. Concrete should be a minimum of 28 days old or have 3% or less moisture content. Moisture

content can be determined using the test method ASTM D4263.

Concrete (Old):

Remove oil, grease, dirt and any unsound concrete using a combination of commercial de-greasers, 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.

Steel:

Remove greases, oils and contaminants from surfaces and sandblast to white metal.

AREA PREPARATION

For optimal performance, the coating should be maintained at 18 to 30° C (68 to 86°F) for 24 hours prior to beginning work.

PRIMING

ZeraDur™ 110LT is a self-priming low temperature- cure coating to be installed in two- coat application. For optimal performance as a primer, the addition of 3-5% of ZeraSolv solvent is recommended. Avoid ponding of the solvent in depressions in the concrete surfaces. The first coat must be fully dry and firm before applying the topcoat of **ZeraDur™ 110LT** to prevent film defects (e.g. fish eyes).

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.

- Pre-mix component “A” of **ZeraDur™ 110LT** 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 notch 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.

- If a non-slip surface is required use Zeraus non-slip additive to generate an attractive uniform non-slip finish.
- Allow to cure thoroughly (36 hours) at 0 C before exposing to light vehicular traffic and 7 days for full service. Keep water & detergent away from the floor until fully cured.

LIMITATIONS

- Do not leave the materials for long at low temperature because it will lead to viscosity build-up which could make the application difficult and lead to poor levelling properties.
- Not recommended for areas subjected to steam cleaning, harsh chemicals.
- Do not use over existing floor without testing both the inter-coat adhesion as well as the adhesion of the existing floor to concrete.
- Never apply the topcoat over tacky or partially wet primer.
- It will discolor upon exposure to direct UV.

THEORETICAL COVERAGE

Neat: 15 mil dry film thickness:

Prime Coat (5 mils): 8 m²/litre (300f²/U.S. gallon)

Second Coat (10 mils): 4 m²/litre (160 f²/U.S. gallon)

PACKAGING

3.79 litre/2.9 U.S. gal. units

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 after use with xylene.

SAFETY PRECAUTIONS

Read Material Safety Data Sheet (MSDS) for specific instructions.

STORAGE

Store in a heated warehouse. Do not freeze.

SHELF LIFE

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

WARRANTY

“The recommendations made and the information herein is the result of accurate laboratory and field tests under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. Zeraus Products Inc. makes no warranties, expressed or implied, as uses and applications are beyond our control. Zeraus Products Inc. shall not be liable for any injury, loss, or damage (direct or consequential) arising from use or inability to use the products. Before using, the user is urged to pre-test the products in his/her own environment to determine the suitability of the products for their intended use, and the user assumes all risk and liability whatsoever in connection therewith.

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