

ZeraDur™ 210HD

Heavy-Duty Chemical-Resistant Epoxy Coating

DESCRIPTION

ZeraDur™ 210HD is a 100% solids, two-component epoxy floor coating that is designed for heavy-duty flooring applications. It possesses outstanding all-around chemical resistance (refer to chemical resistance chart).

ZeraDur™ 210HD generates a smooth highly attractive glossy showroom quality finish. It is specially formulated based on cycloaliphatic amine hardener, as well as UV blocker/stabilizer additives. Together, it provides excellent colour stability for indoor applications.

ZeraDur™ 210HD contains a high-level of fine grade aluminum oxide to generate maximum scratch and abrasion resistance performance.

WHERE TO USE

ZeraDur™ 210HD is recommended for use in direct exposure and secondary containment areas in foundries, steel and chemical manufacturing, breweries, dairies, paper mills, processing areas, refineries, operating rooms, food processing and pharmaceutical plants, and warehouse facilities.

BENEFITS

- 100% solids, with very low odour, zero VOC's
- No odour
- Very good colour stability for interior application
- Excellent water and chemical resistance
- Resistant to battery acid and 50% hydrogen peroxide
- Highest-in-its-class resistance to abrasion, mar and scratching

HANDLING PROPERTIES @ 23°C (74°F)

Mixing Ratio, by volume	2 parts A: 1 part B
Viscosity (mixed), cps	1000 cps
Solids (by volume)	100%
Density (mixed)	1.35 kg/litre (11.24 lb./US gal)
Pot Life	20 minutes
Thin Film Set Time/Foot Traffic	16 hours
Vehicular Traffic	24-36 hours
Full Cure and Maximum Resistance	7 days

DATA – Cured Film

Tensile Elongation	5% @ break
(ASTM D638-86)	

Tensile Strength	44 MPa (6200 psi)
(ASTM D638-86)	
Hardness (Shore D)	83
(ASTM D2240-86)	
Abrasion Resistance (ASTM D4060)	54 mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

SURFACE PREPARATION

ZeraDur™ 210HD should be applied over clean, sound, and dust free surfaces. For the best results, the surface should be prepared as follows:

Concrete (New):

Shot blasting 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 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 the coating. If acid etching is the method of choice for the preparation of the concrete surface then the etched surface must be thoroughly flushed and dry prior to the coating application.

AREA PREPARATION

For optimal performance, both the coating and substrate should be maintained from 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 the blistering of materials due to the 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.

THE SYSTEM

Two coats are recommended: one prime coat using Zera Prime™ 100FS at 5 mils, and one topcoat of ZeraDur™ 210HD at 15 mils.

MIXING

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. Mix component A first to eliminate the possibility of settlement. Pour all of the liquid from Part A and Part B into the mixing container. A 'Jiffy Mixer' equipped with a slow speed drill is the preferred method of mixing. Mix the blended components for 2 minutes.

APPLICATION

Pour a workable amount of the mixed material on to the prepared substrate and spread it evenly over the surface with a flat squeegee. Using a lint free 5 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.

Non-Slip Finish:

If a non-slip sanded surface is required, ZeraDur™ 210HD must then be applied in two coats each at 8 mils film thickness over the primer. A properly graded, dry, contaminant-free grit should be broadcasted on the surface and back rolled to encapsulate the aggregate into the coating. Apply the second coat in the same manner as the first. Allow to cure thoroughly before exposing to chemicals or continuous traffic.

If Zeraus' non-slip additive is to be used, add the 270gm bag directly into 3-11L unit of mixed Part A and B and mix again for one minute. Pour the material onto the floor and apply with a squeegee and back roll to 8 mils thickness.

LIMITATIONS

- Do not apply ZeraDur™ 210HD if the substrate and ambient temperatures are below 10°C (50°F).
- Not recommended for areas subjected to steam cleaning, harsh chemicals or heavy impact.
- Do not use over an existing floor without testing both the inter-coat adhesion as well as the adhesion of the existing floor to concrete.
- Do not apply in areas where the humidity is greater than 85%.
- May discolor slightly under long-term exposure to UV in exterior environment
- Do not use on slab-on-grade without vapour barrier.

NOTE: Product is made to order due to self-life stability issue. The aluminum oxide tends to settle irreversibly over time

COVERAGE

Based on 12 mils thickness per coat:
3.25 m²/litre (120 ft²/U.S. gallon).

PACKAGING

11.4 litre/ 3 U.S. gallon units
56.7 litre/15 U.S. gallon units

CLEAN UP

Clean all equipment and installation tools immediately with xylene.

SAFETY PRECAUTIONS

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

STORAGE

Store in a heated warehouse. Do not freeze.

SHELF LIFE

2 years 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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