

PART 1 GENERAL

1.1 SUMMARY

- A. Provide labour, materials, equipment and supervision necessary to install a floor coating system as outlined in this specification.
- B. The manufacturer's application instructions for each product used are considered part of this specification and should be followed at all times.

1.2 SYSTEM DESCRIPTION

- A. The **ZeraPrime W-30FS** and the **ZeraTuf EW-240LC** materials supplied by Zeraus Products Inc. are to create a seamless floor coating system.
- B. The **ZeraPrime W-30FS** and the **ZeraTuf EW-240LC** shall be designated for application on the specific type of substrate indicated on the drawings.

1.3 SUBMITTALS

- A. Product Data: Submit the Zeraus Products Inc. technical data sheets.

1.4 QUALITY ASSURANCE

- A. Supplier Qualifications: **ZeraPrime W-30FS** and **ZeraTuf EW-240LC**, as supplied by Zeraus Products Inc. are approved for use on this project.
- B. Applicator Qualifications: Applicators shall be approved to install the specified system.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Materials shall be delivered in original sealed containers, clearly marked with the supplier's name, brand name and type of material.
- B. Storage and Handling: The recommended material storage temperature is 23 C (74 F). Handle products to avoid damage to the containers. Do not store for long periods in direct sunlight.

1.6 PROJECT CONDITIONS

- A. Environmental Conditions:

1. Do not proceed with the application of the materials when the substrate temperature is less than 12 C (54 F). It is recommended to maintain a minimum concrete temperature of 23 C (74 F) for a minimum of 7 days after the coating system has been applied.
2. The concrete must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with the ground must have a properly installed, effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. The moisture content of the concrete must not exceed four pounds per 1,000 square feet per 24 hours when tested by the referee or quantitative calcium chloride test method.
3. Do not apply the materials unless the concrete surface to receive the coating is clean and dry.

1.7 WARRANTY

A. Upon request, Zeraus Products Inc. shall offer the manufacturer's standard warranty upon receipt of a properly executed warranty request form.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Zeraus Products Inc., 250 Rayette Road, Unit 18, Vaughan, Ontario, L4K 2G6, Phone (905) 761-9920, Fax (905) 761-6920, www.zeraus.com

2.2 MATERIALS

- A. **ZeraBond Type 3** Clear Epoxy Gel (concrete repairs) or ZeraBond Ultra (fast setting version)
- B. **ZeraFloor Resin mixed with Zeraus's Trowel Grade Base Sand** (concrete repairs)
- C. **ZeraPrime W-30FS** and **ZeraTuf EW-240LC** (coating system)

2.3 MATERIAL PERFORMANCE CRITERIA

A. The typical material performance requirements of the **ZeraPrime W-30FS** which is top coated with the **ZeraTuf EW-240LC** to be used on this project must meet the performance criteria which was established on a 5' x 10' sample coating system that had been applied during the week of February 6th, 2012 at this noted project.

2.4 MIXES

- A. Comply with manufacturer's instructions for mixing procedures.
- B. Carefully measure and mix the components together.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that the work done under other sections meets the following requirements:

- 1. That the concrete substrate surface is free of ridges and sharp projections, sound and dry.
- 2. That the concrete was cured for a minimum of 28 days with a minimum of 35 MPa compressive strength.
- 3. That damaged areas of the concrete substrate be restored to match the adjacent areas.
(Use **ZeraBond Type 3** Clear Epoxy Gel or **ZeraFloor Resin mixed with Zeraus's Trowel Grade Base Sand**). (Contact Zeraus Products Inc. for mixing instructions)

3.2 PREPARATION

A. Protection:

- 1. Protect adjacent surfaces from damage resulting from work of this trade. If necessary, mask and/or cover adjacent surfaces, fixtures, equipment, etc. by suitable means.
- 2. Provide a suitable work station to mix the coating materials.

B. Surface Preparation:

1. The concrete substrate must be free of all dirt, waxes, previously applied coatings, oil, grease, laitance, and any foreign matter that may interfere with the bond of the primer to the prepared concrete surface.
2. Prepare the concrete surface by using planetary grinding machines to remove the surface contaminants.
3. Cracks and surface defects should be repaired prior to the application of the coating using either **ZeraBond Type 3** Clear Epoxy Gel or **ZeraFloor Resin mixed with Zeraus's Trowel Grade Base Sand (followed by sanding with 50 grits sandpaper too smooth the surface)**.

Note: Planetary grinding machines do not remove deep penetrating oils, grease, tar or asphalt stains. Proper cleaning procedures should be followed to insure proper bonding of the epoxy floor coating system.

4. Surface Condition: The concrete must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with ground must have a properly installed, effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. The moisture content of the concrete must not exceed four pounds per 1,000 square feet per 24 hours when tested by the referee or quantitative calcium chloride test method.
5. Do not apply the materials unless the surface to receive the coating is clean and dry.

3.3 APPLICATION

A. Primer: first mix component A for one minute, then add a bag of the "Non-Slip Additive" provided by the manufacture and mix well for another minutes to disperse all the powder in the liquid. Combine Part A and Part B at equal volume and mix for two minutes using a "Jiffy Mixer" or a mud mixer on a slow speed drill. Immediately apply (no induction period) the material to an even coat using a lint-free 9 mm nap roller at a rate of 7.4 square meters per litre (300 square feet per U.S. gallon) to the prepared concrete substrate. This primer must cure for a minimum of 4-5 hours @ 23 C (74 F) before applying the topcoat. If the topcoat is not applied within 48 hours @ 23 C (74 F), contact Zeraus Products Inc. for the correct procedure.

B. Topcoat: First mix component A of **ZeraTuf EW-240LC** water-borne clear epoxy topcoat to eliminate the possibility of settlement. Then mix **ZeraTuf EW-240LC** at a ratio of 1:1 by volume for two minutes using a "Jiffy Mixer" or a mud mixer on a slow speed drill. Apply the material to an even coat using a lint-free 9 mm nap roller at a rate of 7.4 – 8.6 square meters per litre (300 – 350 square feet per U.S. gallon) over the **ZeraPrime W-30FS**. The **ZeraTuf EW-240LC** must cure for a minimum of 16 hours @ 23 C (74 F) before being subjected to light foot traffic; and a minimum of 7 days @ 23 C (74 F) before being subjected to vehicular traffic.

3.4 CLEANING

A. Remove debris resulting from completion of coating operation from the project site.

B. Reference Zeraus's Floor Coating Systems Protection, Cleaning, and Maintenance Guidelines for cleaning methods.

3.5 PROTECTION

A. After completion of the application, do not allow vehicular traffic on the coated surfaces for a period of at least 7 days hours at 23 C (74 F).

END OF SECTION

"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.

Zeraus Products Inc.'s liability, if any, is limited to a refund of the purchased price or replacement of that portion of the merchandise proven to be defective. Zeraus Products Inc. shall have no other liability, including liability for incidental, consequential or resultant damages, however caused, whether due to breach of warranty, negligence, or strict liability. This warranty may not be modified or extended by representatives of Zeraus Products Inc., its distributors or dealers."

END OF SECTION