



SPECIFICATION
Section 09440

**DUOCHEM 9017
EPOXY TERRAZZO**

Note to Specifiers

The purpose of this outline specification document is to assist the specifier to compile a specification for the proper use of Duochem 9017 Epoxy Terrazzo System. This document has been prepared to be part of a complete project specification and is not intended to be used as a project document by itself.

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS: Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.
- 1.02 WORK INCLUDED: Trowel application of epoxy matrix terrazzo flooring, including surface preparation, primer, aggregate topping, grout coat, and finish coat.
- 1.03 RELATED WORK SPECIFIED IN OTHER SECTIONS:
- | | | |
|----|----------------|---------------|
| A: | Concrete work: | Section 03300 |
| B: | Joint sealant: | Section 07900 |

Note to Specifiers

An effective vapor barrier is suggested beneath substrates in contact with ground.

- 1.04 QUALITY ASSURANCE:
- A: **Only experienced applicators authorized by the coating manufacturer are to be used to install this flooring system.**
- B: Prior to commencement of any work, a minimum 2 m² (20 ft²) mock-up will be installed on site for each system. This will be viewed by all parties, and only when accepted will work of same system be allowed to proceed. The mock-up will serve as a benchmark for the installation of each system for the entire project.
- 1.05 SUBMITTALS: Comply with Section 01300.
- A: Product Data: Submit manufacturer's technical data, installation instructions, and general recommendations.
- B: Samples: Submit color samples on rigid backing for selection and approval of owner's representative, architect or engineer.
- 1.06 PRODUCT DELIVERY AND STORAGE:

- A: Deliver materials to job site in sealed, undamaged containers clearly labelled with name and batch number.
- B: Store materials to comply with manufacturer's directions to prevent deterioration due to moisture, heat, cold, direct sunlight or any other causes.

1.07 JOB CONDITIONS:

- A: Provide temporary traffic barriers and supervision necessary to control traffic during coating operations.
- B: Ensure that storage areas for coating materials and floor surfaces are above 13°C (55°F) and below 29°C (85°F) for a minimum of 48 hours prior to installation.
- C: Commencement of installation implies acceptance of the concrete surface as suitable to receive the coating system.
- D: Apply coating materials in strict accordance to all safety and weather conditions as required by the manufacturer of coating materials or as required by Municipal, Provincial and Federal rules and regulations.

PART 2 - PRODUCTS

2.01 GENERAL: All components and products of the matrix terrazzo shall be manufactured and supplied by a single manufacturer.

2.02 MANUFACTURER: DUOCHEM INC., 1250 Graham Bell, Boucherville, Quebec J4B 6H5, Telephone 450-655-6421 or 1 888 577-6421. Branch Offices: Dartmouth, N.S., 902-468-7878 or 1 877 829-9769; Toronto, Ont., 416-630-2736 or 1 800 268-7936; Western Ontario, 519-245-8151; Vancouver, B.C., 604-521-0572, Western Canada 1 877 455-9595.

2.03 EPOXY MATRIX TERRAZZO: Duochem 9017 flooring system, consisting of primer, two component solvent-free epoxy resin binder, aggregate filled topping and finish coats.

- A: Primer: Duochem 571 Epoxy Primer (Optional)
- B: Aggregate Topping: Duochem 9017 mixed with marble chips sizes # 0 and # 1 for 6 mm (1/4") and # 0 and # 2 for 10 mm (3/8") thicknesses as selected by Architect from TTMAC manual.
- C: Grout Coat: Duochem 9017
- D: Finish Coat: Duochem 151 or Duochem 6030

Note to Specifiers

Duochem 571 primer is only required for surfaces that are porous. This is usually determined during pre-job meetings and is usually not required in most circumstances. Special colors and different aggregates, such as recycled glass, are available. Consult with your local Duochem representative for additional information. Duochem 390 elastomeric membrane may be applied beneath this system for waterproofing or as an anti-fracture membrane.

- 2.04 ANTI-FRACTURE MEMBRANE: Duochem 390 membrane applied to entire concrete surface or at location of cracks.
- 2.05 DIVIDER STRIPS: "L" shape to required floor thickness, white alloy zinc, brass, or colored plastic.

PART 3 - EXECUTION

3.01 INSPECTION:

Examine surfaces and conditions under which flooring is to be applied. Moisture content of surfaces and building air temperatures must be within limits recommended by the flooring manufacturer. Do not start work until unsatisfactory conditions have been corrected. Application of materials indicates acceptance of surfaces.

- A: Surfaces shall be free of membrane curing compounds, laitance, dust, dirt, grease, oil and any other contaminant that may affect proper adhesion of the coating.
- B: Surfaces to receive coating shall be equivalent to a light steel trowel finish for new or patched concrete surfaces.
- C: Moisture content of the concrete shall be checked using a Delmhorst moisture meter. Moisture content shall be within the limits set by the manufacturer prior to commencing work.
- D: Do not apply coating system if ambient temperature is below 10°C (50°F) or above 32°C (90°F) or if relative humidity is above 80%.

3.02 SURFACE PREPARATION:

- A: Thoroughly clean all surfaces to receive coating by steel shotblast, sandblast, or other method approved by manufacturer.
- B: Remove projections and other conditions that may affect the installation of the flooring system.
- C: Protect adjacent surfaces, fixtures and equipment with drop cloths or masking as necessary to prevent damage from surface preparation.

3.03 MATERIAL PREPARATION:

Carefully prepare and mix materials used in flooring work in compliance with manufacturer's instructions.

3.04 FLOORING APPLICATION:

Apply each component of flooring system in compliance with manufacturer's directions to produce a uniform monolithic wearing surface of 6 mm (1/4") total dry film thickness, uninterrupted except at divider strips, or other types of joints, indicated or required.

- A: Prime Coat: Apply primer over prepared substrate, at manufacturer's recommended spreading rate, with timing of application coordinated with subsequent application of topping mix to ensure optimum adhesion between flooring materials and substrate (optional).

- 3.04 B: Anti-Fracture Membrane: Apply Duochem 390 membrane to entire concrete surface or a 150 mm (6") band centered over cracks with a notched squeegee and roller to obtain a 750 microns (30 mils) dry film thickness.
- C: Aggregate Topping Mix: Trowel apply aggregate topping mix over tacky primer and at spreading rate required to produce minimum thickness specified. Allow topping to harden at least 24 hours prior to initiating grinding operations.
- D: Grout Coat: Apply grout coat to fill any surface voids. Allow to cure before polishing.
- E: Finish Coat: Apply clear finish coat at spreading rate recommended by manufacturer.
- 3.05 COVERED BASE: Apply flooring system to wall surfaces to form base with cove of radius and height as indicated. Round interior and exterior corners.

Note to Specifier

Coved bases are optional. System may be installed without coved base. If installed without coved base specify a premanufactured base product.

- 3.06 DIVIDER STRIPS: Provide thin-set-type divider strips parallel to wall if coved base is required and at other predetermined locations as indicated.

Note to Specifier

Divider strips are only required as above or to terminate flooring system installed per shift. Divider strips are also required to separate patterns or different colors.

- 3.07 JOINTS:

Where substrate is interrupted by expansion or control joints, provide joint in flooring to comply with details indicated, or if not indicated, as recommended by flooring manufacturer.

- 3.08 CLEANING AND PROTECTION:

- A: Clean uncured flooring materials from surfaces with Duochem 201 Solvent. Removal of cured materials requires scraping, chipping or grinding.
- B: Protect flooring materials from wear and damage during construction operations.
- C: Clean flooring just prior to final acceptance using materials and procedures recommended by flooring manufacturer.

END OF SECTION
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