

SECTION 033543 - POLISHED CONCRETE FINISHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Polished concrete finishing.
- B. Related Requirements:
 - 1. Section 033000 "Cast-in-Place Concrete" for concrete slabs which may, or may not, be designated for a polished finish.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Polishing Schedule: Submit plan showing polished concrete surfaces and schedule of polishing operations for each area of polished concrete before start of polishing operations. Include locations of all joints, including construction joints.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Repair materials.
 - 2. Liquid floor treatments.

1.5 QUALITY ASSURANCE

- A. Mockups: Create mockups to verify selections made under Sample submittals and to demonstrate typical joints, surface finish, tolerances, and standard of workmanship. Create mockups to comply with the following requirements, using materials indicated for the completed Work:

1. Provide two (2) mockups; one for newly placed concrete, and one for existing concrete, located in areas where floor coverings will be placed, and mockups will be concealed at end of project.
2. Demonstrate curing, finishing, and protecting of polished concrete.

1.6 FIELD CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

PART 2 - PRODUCTS

2.1 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatments for Polished Concrete Finish: Clear, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; that penetrates, hardens, and is suitable for polished concrete surfaces.
 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. ARDEX Americas; PC 50 Lithium Densifier
 - b. Euclid Chemical Company (The); an RPM company; Euco Diamond Hard.
 - c. H&C Decorative Concrete Products; a brand of Sherwin-Williams Co.; ENDURAPOLISH Clear Liquid Hardener & Densifier.
 - d. Laticrete International, Inc.; FGS Hardener Plus
 - e. MAPEI Corporation; Mapecrete Hard Li
 - f. PROSOCO, Inc; Consolideck LS.
 - g. Sika Corporation, SCOFIELD Formula One Lithium Densifier MP
 - h. Vexcon Chemicals Inc.; Certi-Shine Clear

PART 3 - EXECUTION

3.1 POLISHING

- A. Polish: Level 3: High sheen, 800 grit.
- B. Apply polished concrete finish system to cured and prepared slabs to match accepted mockup.
 1. Machine grind floor surfaces to receive polished finishes level and smooth, and to depth required to produce a Grade 2 “Salt & Pepper Finish”, exposing a spattering of aggregate in the concrete floor, giving the appearance of an aged surface.

2. Apply penetrating liquid floor treatment for polished concrete in polishing sequence and according to manufacturer's written instructions, allowing recommended drying time between successive coats.
3. Continue polishing with progressively finer-grit diamond polishing pads to gloss level, to match approved mockup.
4. Control and dispose of waste products produced by grinding and polishing operations.
5. Neutralize and clean polished floor surfaces.

END OF SECTION 033543