

**SECTION 03 35 00  
CONCRETE FLOOR FINISHING**

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Finishing separate floor toppings, slabs-on-grade, and monolithic floor slab.
- B. Surface treatment with concrete hardener, sealer, and slip resistant coatings.

**1.2 REFERENCES**

- A. ACI 301 - Structural Concrete for Buildings
- B. ACI 302 - Guide for Concrete Floor and Slab Construction
- C. ASTM E1155 - Standard Test Method for Determining  $F_F$  Flatness and  $F_L$  Floor Levelness Numbers

**1.3 SUBMITTALS**

- A. Submit under provisions of Section 01 33 00 Submittals Procedures.
- B. Product Data: Provide data on concrete hardener, sealer, and slip resistant treatment, compatibilities, and limitations.

**1.4 MAINTENANCE DATA**

- A. Submit under provisions of Section 01 77 00 Contract Closeout.
- B. Maintenance Data: Provide data on maintenance renewal of applied coatings.

**1.5 QUALITY ASSURANCE**

- A. Perform work in accordance with ACI 301 and ACI 302.
- B. Maintain copies of each document on site.

**1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, protect, and handle products under provisions of Section 01 31 00 Project Management and Coordination.
- B. Deliver materials in manufacturer's packaging including application instructions.

**1.7 ENVIRONMENTAL REQUIREMENTS**

- A. Temporary Lighting: Provide minimum 200 W light source, 8' above the floor surface, for each 425 sq. ft. of floor being finished.
- B. Temporary Heat: Ambient temperature of 50° F (10° C) minimum
- C. Ventilation: Sufficient to prevent injurious gases from temporary heat or other sources affecting concrete.

**1.8 COORDINATION**

- A. Coordinate work under provisions of Section 01 31 00 Project Management and Coordination.
- B. Coordinate the work with concrete floor placement and concrete floor curing.

**PART 2 PRODUCTS**

**2.1 COMPOUNDS - HARDENERS AND SEALERS**

- A. Non-Metallic Hardener: Premixed, dry powder, colored, emery aggregate and abrasion resistant hardener.

**2.2 SLIP RESISTANT TREATMENT**

- A. Slip Resistant Finish: Aluminum oxide type, color as selected from manufacturer's standard range

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify site conditions under provisions of Section 01 31 00 Project Management and Coordination.
- B. Verify that floor surfaces are acceptable to receive the work of this section.

### 3.2 FLOOR FINISHING

- A. Finish concrete floor surfaces in accordance with ACI 301 and ACI 302.
- B. Wood-float surfaces that will receive quarry tile, ceramic tile, cementitious terrazzo with full bed setting system.
- C. Steel trowel surfaces receiving carpeting, resilient flooring, seamless flooring, thin set terrazzo, thin set quarry tile, and thin set ceramic tile.
- D. Steel trowel surfaces scheduled to be exposed.
- E. In areas with floor drains, maintain design floor elevation at walls; slope surfaces uniformly to drains as indicated on drawings.

### 3.3 FLOOR SURFACE TREATMENT

- A. Apply dry shake liquid hardener in accordance with manufacturer's instructions as scheduled.
- B. Apply slip resistant finish in accordance with manufacturer's instructions as scheduled.
- C. Apply sealer in accordance with manufacturer's instructions as scheduled.

### 3.4 TOLERANCES

- A. Measure for  $F_F$  and  $F_L$  tolerances for floors in accordance with ASTM E1155, within 72 hours after slab installation
- B. Finish concrete to achieve the following tolerances:
  - 1. Under Ceramic or Quarry Tile on Setting Bed:  $F_F$  25 and  $F_L$  25
  - 2. Under Resilient flooring (VCT, sheet vinyl, etc):  $F_F$  30 and  $F_L$  25
  - 3. Exposed to View and Foot Traffic (polished concrete):  $F_F$  40 and  $F_L$  35
  - 4. Exposed stained concrete (mechanical, electrical, custodial):  $F_F$  20 and  $F_L$  15
  - 5. Exception: The  $F_L$  levelness tolerances do not apply to any un-shored elevated construction.
  - 6. Correct the slab surface if the actual  $F_F$  or  $F_L$  number for the floor installation measures less than required.
- C. Identify areas requiring corrective work.
  - 1. Correct all defects in the defined traffic floor by grinding or removal and replacement of the defective work.
  - 2. Re-measure corrected areas by the same process.

END OF SECTION