

SECTION 03 35 43 - POLISHED CONCRETE FINISH

- **GENERAL**

- ADMINISTRATIVE REQUIREMENTS

- Pre-Installation Conference:
 - Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] installer, and related trades.
 - Review:
 - Project conditions, manufacturer requirements, delivery and storage, staging and sequencing, and protection of completed work.
 - Concrete mix designs.
 - Floor flatness (Ff and FI) requirements.
 - Curing requirements.

- SUBMITTALS

- Action Submittals:
 - Product Data: Manufacturer's descriptive data and product attributes for each product.
 - Samples: [Selection samples.] [Verification samples.]
- Informational Submittals: Post-installation testing results to ASTM D5767 and ASTM D523.
- Close Out Submittals: Maintenance data.

- QUALITY ASSURANCE

- Installer Qualifications:
 - Minimum [2] [] years' experience in work of this Section.
 - Approved by manufacturer.
- Manufacturer: Minimum [10] [] years' experience in producing specified materials.
- Materials: Compliant with third party CDPH low-emitting material testing.

- **PRODUCTS**

- MANUFACTURERS

- Contract Documents are based on products by Solomon Colors. www.lythic.com
- Substitutions: [Refer to Division 01.] [Not permitted.]

- MATERIALS

- Hardener:
 - Type: Liquid applied finishing aid for newly poured concrete to reduce shrinkage cracks, hydration, and surface impact strength.
 - Source: Day1.
- Cleaner:
 - Type: Cleaner: Water-based, colloidal silica blended surfactant, silica dust reducer.
 - Source: Lythic Cleaner.
- Dye:
 - Type: Translucent, liquid color dye.

- Source: Pro-Dye.
- Color: [_____] [To be selected from manufacturer's full color range.]
- Hardener and Densifier:
 - Type: Water based, colloidal silica, odorless, penetrating hardener.
 - Source: Densifier and XL.
- Protector:
 - Type: Water-based, penetrating film forming protector, colloidal-silica co-polymer acrylic.
 - Source: Protector.
- ACCESSORIES
 - Crack and Joint Treatment: Polyurea-based joint filler.
 - Spall, Surface Defect and Resin Grout Material: Epoxy or polyurea-based material.
 - Cementitious Grout: Unsanded, fast curing, hydraulic cement-based floor material.
 - Temporary Protection: Stain and water-resistant sheeting.
- **EXECUTION**
- PREPARATION
 - Test floors in accordance with manufacturer's instructions.
- DYEING
 - Apply dye in accordance with manufacturer's instructions.
- POLISHING
 - Fill surface imperfections using surface repair products such that imperfections are not noticeable when viewed from 10 feet away under lighting conditions that will be present after construction.
 - Apply undiluted solution to point of rejection, remove excess liquid, and allow to cure according to manufacturer's instructions.
 - Apply grout as required to form continuous monolithic surface.
 - Final Polished Concrete Floor Finish: Class [A – Cement Fines; 85 to 95 percent cement fines, 5 to 15 percent fine aggregate.] [B - Fine Aggregate; 85 to 95 percent fine aggregate, 5 to 15 percent blend of cement fines and coarse aggregate.] [C - Coarse Aggregate; 80 to coarse aggregate; cement fines, 10 to 20 percent blend of cement fines and fine aggregate.]
 - Final Concrete Floor Gloss:
 - Level [1 – Flat, image clarity value 0 to 9 percent, haze index less than 10] [2 – Satin; image clarity value 10 to 39 percent, haze index less than 10.] [3 – Polished; image clarity value 40 to 69 percent, haze index less than 10.] [4 – Highly Polished; image clarity value 70 to 100 percent, haze index less than 10.]
 - Test image clarity value to ASTM D5767 and haze to ASTM D4039 prior to application of sealer, at rate of three tests per 1000 square feet of polished concrete.
 - Final Surface: Abrasion and scratch resistant, uniform in appearance.
- SEALING
 - Apply sealer to manufacturer's recommend coverage.

- Burnish to uniform sheen matching approved mockup.
- FIELD QUALITY CONTROL
 - Measure slip resistance using BOT-3000 slip-tester; ensure compliance with specified slip resistance rating.

END OF SECTION