

**GUIDE SPECIFICATION
FOR
DIAMOND GROUND CONCRETE FINISH
JAN. 2009**

SECTION 33__ DIAMOND GROUND SAND FINISH CONCRETE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes mechanically processed concrete finish applied to cast-in place concrete surfaces as follows:
 - 1. Diamond ground "**SAND FINISH**" Concrete Floor Finish.

1.3 SUBMITTALS

- A. Submit each item in this article according to the conditions of the Contract and Division 1 Specification Sections.
- B. Submit__ samples of concrete with ground finish
(General Contractor to provide 2' x 2' cured samples for grinding and finishing).

1.4 QUALITY ASSURANCE

- A. Mockups: Prior to applying special concrete finishes, construct a mockup for each finish required to verify selections made under the sample submittals and to demonstrate aesthetic effects. Build mockups to comply with the following requirements, using materials for final unit of work.
- B. Locate mockups on-site in the location and size indicated or, if not indicated, as directed by the Architect. Provide an area of 4' x 4' min. in a typical floor condition to be used as a control sample.
- C. Installer Qualifications: Engage an experienced concrete grinder and finisher who has completed special concrete finish work similar in material, design and extent to that indicated for this project and with a documented record of successful in-service performance.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Use materials indicated in Section 03300, Cast-In-Place Concrete, except as modified in this section.
- B. Normal Weight Aggregate: ASTM C33.0.
- C. Concrete mix design: conform with Specification requirements. 3000 PSI typical.
- D. Integral matrix color: Bayferrox or approved equal. (Insert number of pounds of color powder per 94 lb. sack if integral color concrete is required).

PART 3- EXECUTION

3.1 GRINDING

- A. **General: Decorative ground concrete is produced by grinding and finishing troweled finished cured concrete.**
- B. **Allow concrete to cure minimum 28 days.**
- C. Clean dust and debris from saw cut joints and fill with _” (nom) silica sand bed and approved epoxy joint filler colored to match (or contrast) with concrete color.

3.2 FINISHING

- A. Rough Grinding: Grind with 40 grit metal bond Diamond plugs to remove surface Fines and expose small aggregate. Maintain specified flatness.
- B. Follow initial grind with 80 grit metal bond Diamond plugs, 100 and 200 grit resin bond pads to remove scratches in concrete surface.
- C. Grout “pinholes” if necessary using cement grout blend - matched to color.

3.3 CONCRETE SEALER (Option)

- A. Concrete sealer for ground concrete interior locations. A clear, highly penetrating solvent based acrylic sealer to form a tack free barrier against stains from oils, greases, water, acid, and chemical discoloration. Sealer shall intensify color of ground aggregates, shall not discolor or amber.

3.4 POLISHED CONCRETE (Option)

- A. Densify concrete surface using approved densifier / hardener per manufacturer’s specifications.
- B. Polish using Resin bond Diamond pads to desired sheen. (400, 800, 1500 grit).
- C. Apply 2 coats concrete sealer / water based guard, machine buff or burnish.

GROUND CONCRETE FINISH