



530 Madison Avenue, Junction City, IL 62882 • (618) 533-3600 or (877) 693-1212 • Email: info@interstar-paf.com

Product Specification Guide: Concrete Pigments

Specifier Notes: This Product Specification Guide is written according to the Construction Specifications Institute (CSI) 3-Part Format, as described in The Project Resource Manual — CSI Manual of Practice. Section numbers and titles are from MasterFormat 1995 Edition, with numbers and titles from MasterFormat 2004 Edition in parentheses. Delete the version not required. SECTION 03055 (03 05 40)

The Architect must carefully review and edit this document to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings.

Note: Delete all "Specifier Notes" when editing this section.

Concrete Pigments

Specifier Notes: This section covers Interstar Pigments, Admixtures & Fibers' **Granastar® Granular Pigments Colors for Ready Mix Concrete**. Coordinate this section with the section specifying the concrete. Consult Interstar for assistance in editing this section for the specific application.

Part 1. General

1.1 Section Includes

Specifier Notes: Select the materials specified in this section.

- A. Granastar® Granular Pigments (to be added to concrete).
- B. Interstar Ready Mix Iron Oxide Powder Pigment (to be added to concrete).

1.2 Related Sections

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 03300 (03 30 00) Cast-in-Place Concrete
- B. Section 03330 (03 33 00) Architectural Concrete
- C. Section 03400 (03 40 00) Precast Concrete

1.3 References

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 33 Standard Specification for Concrete Aggregates
- B. ASTM C 94 Standard Specification for Ready-Mixed Concrete
- C. ASTM C 150 Standard Specification for Portland Cement
- D. ASTM C 979 Standard Specification for Pigments for Integrally Colored Concrete

1.4 Submittals

- A. Comply with Section 01330 (01 33 00) Submittal Procedures
- B. Product Data: Submit manufacturer's product data, including mixing instructions.

Specifier Notes: Coordinate the following sentence with the section specifying the cement.

- C. Samples: Submit manufacturer's samples of standard concrete colors mixed with cement specified in Section 03.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty: Submit manufacturer's standard warranty.

1.5 Quality Assurance

- A. Manufacturer's Qualifications:
 - 1. Sufficient plant facilities to provide quality and quantity of materials as required without delaying progress of the work.
 - 2. Minimum of 10 years of experience producing iron oxide pigments to be added to concrete.

Specifier Notes: Any differences in the concrete materials, batching, mixing, slump, or finishing techniques can create differences in the final concrete color. Construction of mock-ups for approval by the Architect prior to starting the work is strongly recommended. Scope of the mock-up construction must be clearly specified. Coordinate the "mock-ups" paragraph with the section specifying the concrete. Delete the following paragraph if mock-ups are not required.

- B. Mock-Ups:
 - 1. Construct mock-ups of concrete with pigments for color approval by the Architect.
 - 2. Construct mock-ups as specified in Section 03.
 - 3. Approved mock-ups shall become the standard for color, appearance and workmanship.

Specifier Notes: Delete one of the following two sentences.

- a. Mock-ups shall remain as part of the completed work.
- b. Mock-ups shall not remain as part of the completed work. At the Architect's direction, demolish the mock-ups and remove debris.

1.6 Delivery, Storage, and Handling

- A. Delivery: Deliver materials in the manufacturer's original unopened containers, with labels clearly identifying product name, manufacturer, color name and number, weight, and mixing instructions.
- B. Storage:
 - 1. Store materials in clean, dry area in accordance with manufacturer's instructions.
 - 2. Keep containers sealed until ready for use.
- C. Handling:
 - 1. Handle materials in accordance with manufacturer's instructions.
 - 2. Protect materials during handling and mixing to prevent damage or contamination.

Part 2. Products

2.1 Manufacturer

A. **Interstar Pigments, Admixtures & Fibers**

530 Madison Avenue, Junction City, Illinois 62882

Phone: (618) 533-3600 or (877) 693-1212

Email: info@interstar-paf.com

2.2 Concrete Pigments

Specifier Notes: Specify the required materials and delete the others. Specify color name and number. Consult Interstar for availability of custom colors.

A. **Granular Iron Oxide Pigments:** Interstar Granastar® Granular Pigment for Ready Mix Concrete

1. Color:
 - a. Name: _____.
 - b. Number: _____.
2. Compliance: **ASTM C 979**
3. Material: Synthetic, milled, blended iron oxide in granular form.
4. Produce uniform and consistent color.
5. Permanent, inert, stable to atmospheric conditions, sun-fast, weather resistant, alkali-resistant, water-insoluble, lime-proof, and non-bleeding.
6. Free of deleterious fillers and extenders.
7. Free of admixtures.
8. Particle Size: Generally less than 1 micron

B. **Dry Powder Iron Oxide Pigments:** Interstar Ready Mix Colors

1. Color:
 - a. Name: _____.
 - b. Number: _____.
2. Compliance: **ASTM C 979**
3. Material: Synthetic, milled, blended iron oxide in powder form.
4. Produce uniform and consistent color.
5. Permanent, inert, stable to atmospheric conditions, sun-fast, weather-resistant, alkali-resistant, water-insoluble, lime-proof, and non-bleeding.
6. Free of deleterious fillers and extenders.
7. Free of admixtures
8. Particle Size: Generally less than 1 micron
9. Density: 0.3 – 1.2 g/mL (19 – 75 lb/ft³)

2.3 Concrete Materials

A. Materials:

1. Ready Mixed Concrete: ASTM C 94.
2. Portland Cement: ASTM C 150. Use the same source, brand, type, and color throughout project.
3. Coarse and Fine Aggregates: ASTM C 33. Use the same source and color throughout project.
4. Admixtures: Designed for use with concrete pigments. Do not use calcium chloride or admixtures containing chlorides. Use the same admixtures throughout project.

Specifier Notes: Coordinate the following paragraph with the section specifying the concrete.

B. Concrete Mix Design: As specified in Section 03, except as specified in this section.

1. Color Pigment Weight: Maximum 10 percent of cement weight.
2. Water to Cement Ratio: Maximum 0.45.
3. Use same concrete mix design throughout project.

Part 3. Execution

3.1 Application: Granular and Dry Powder Oxide Pigments

Specifier Notes: Coordinate the following two paragraphs with the section specifying the concrete.

A. Measuring, Batching, Mixing, and Delivering Concrete:

As specified in Section 03_____, except as specified in this section.

1. Measure, batch, mix, and deliver concrete with pigment according to manufacturer's instructions.
2. Ensure mixer is clean and free of washout water before loading.
3. Load mixer to a minimum of 40 percent capacity.
4. Do not load mixer beyond recommended capacity.
5. Add concrete materials to mixer in same order for each batch.
6. Do not add pigment to mixer as first concrete material.
7. Maintain consistent amounts of batch water in each batch.

B. Placing, Finishing, and Curing Concrete:

As specified in Section 03_____, except as specified in this section.

1. Place, finish, and cure concrete with pigments according to manufacturer's instructions.
2. Allow excess surface water to evaporate before finishing.
3. Do not over-finish surface. Avoid burning surface.
4. Do not fog with water or cover surface of colored concrete during initial curing process for a minimum of 48 hours.

3.2 Cleaning

- A. Ensure concrete has sufficiently cured before cleaning.
- B. Clean concrete of efflorescence in accordance with manufacturer's instructions.
- C. Use a concrete cleaner approved by the pigment manufacturer and architect. Do not use cleaners containing acid.
- D. Apply cleaner in accordance with cleaner manufacturer's instructions.