



## ColorFlo® for ColorSelect® Liquid Dispensing Systems

### LIQUID IRON OXIDE PIGMENTS

Over the past 10 to 12 years, the use of iron oxide colors in concrete has grown to be the single largest application for this type of pigment. This increase in usage has created a demand for better technology and quality control throughout the concrete industry.

The introduction of iron oxide slurry, or liquid color, has been a result of technological advance. Liquid colors are high solids dispersion of iron oxide pigments in water, with total pigment levels between 60 and 70 percent.

### Mixing

- Mixer should be loaded to a minimum of 40% capacity to ensure good color dispersion.
- Be sure to use the same mix design and maintain a consistent water to cement ratio throughout the job with a MAXIMUM 4" SLUMP. (Higher slumps may be obtained by using a water reducer or plasticizer).
- Before adding color to the ready mix truck, it is recommended to reverse the drum bringing the concrete to the back of the truck. Pour color onto the concrete thereby reducing direct contact with the drum.
- Mix at high speed a minimum of 5 minutes before pouring concrete.
- Color variation may occur if batch proportion and slump are not maintained from load to load.
- After pour has begun, adding water to the load to improve workability should be kept to a minimum.

### Additives

- DO NOT use calcium chloride. This product can cause discoloration in the form of light and dark areas in the finished product.
- The use of plasticizers, water reducers and air entraining products designed for colored concrete production are acceptable.

### Job Site Preparation

Good drainage and compacted aggregate add many benefits to decorative concrete. Pouring concrete over an inconsistent sub-grade or mix of dirt, plastic, wood, asphalt and existing concrete will not cure evenly. These types of sub-grades will force the majority of water to the surface to evaporate, causing efflorescence in those affected areas. In hot conditions, dampen the sub-grade before each pour to keep moisture from being absorbed from the concrete too fast. Keep the sub-base moisture consistent throughout the day without allowing the water to pool.

Jobs requiring a vapor barrier and job sites having high heat and low humidity conditions are exceptions to pouring over plastic. Pouring concrete directly over plastic can lead to numerous problems including excessive bleed water, uneven drying time, shrinkage, cracking and efflorescence. Consider adding 2"-4" of sand between plastic and concrete. If pouring directly over plastic, mix design may need to be altered. Slump and placement techniques require tighter tolerances, and finishers need to be well trained and experienced.

### Curing

When applying a curing compound or sealer, follow the manufacturer's application recommendations and coverage rates. Use of a non-yellowing, UV-stable acrylic cure after a minimum of 24 hours is acceptable. With high heat and low humidity, a curing compound may need to be applied sooner. DO NOT cover, fog, or wet cure colored surfaces.

### TECHNICAL SPECIFICATION DATA

#### Composition and Materials

ColorFlo® Liquid Pigments utilize pure red, yellow, and black synthetic

iron oxides. SOLOMON COLORS has expanded the color range by formulating laboratory controlled high tinting strength blends. Each of these colors is 95% to 99% minus 325 mesh particle size. SOLOMON COLORS iron oxides are permanent, inert, stable to atmospheric condition, sunfast, limeproof, and free of deleterious fillers and extenders. All SOLOMON COLORS pigments comply with ASTM C979 for integrally colored concrete and are produced to .8 Delta E, an established plant standard.

### Limitations

A level of 10% color based on the weight of total cementitious material used is the color saturation point. Color added in excess of 10% will not provide additional benefits and can reduce the overall strength of the finished product. Conversely, a level of color below 1% can cause irregular coloring and general "washed out" appearance. The suggested "optimum" range is 2% to 4% pigment loading based on total cementitious material weight.

### Limit of Warranty and Liability

Solomon Colors, Inc. warrants that their product conforms to the description and standards as stated on the product packaging and specific product literature. If properly mixed and applied, Solomon Colors, Inc. warrants the color to be uniform, limeproof, and sunfast. The exclusive remedy of the user or buyer and the limit of the liability of this company shall be the purchase price paid by the user or buyer for the quantity of the SOLOMON COLORS products involved.



- For information on placing and finishing decorative concrete, ask for "Solomon Colors Guide to Decorative Concrete Products."
  - CSI 3-Part Tech Spec Sheets available at [www.solomoncolors.com](http://www.solomoncolors.com) & [www.sweets.com](http://www.sweets.com)
- See Us In    

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