Hydrotint®

Liquid pigments

Product Description

Hydrotint® liquid synthetic pigments are aqueous slurries of high-quality, non-fading, inert, iron oxide pigments, with special dispersants and stabilizers which comply with ASTM C979 Standard Specification for Pigments for Integrally Colored Concrete.

Four Hydrotint primary colors, A875 Black, A550 yellow, A1010 Light Red and A1070 Medium Red, are formulated exclusively for use in the Chameleon®, a state-of-the-art PC controlled automated dispensing system. Plant blending of these primary colors produces a wide range of standard or custom pigments for integrally colored Ready Mix and Precast concrete.

Hydrotint A8090 is a concentrated high quality carbon black based dispersion, treated in a proprietary process so that it readily mixes into the concrete for maximum color enhancement. The product complies with all aspects of ASTM C979, except that it could have an effect on air entrainment.

Uses

Hydrotint Liquid Pigments are often used in Ready Mix concrete for driveways, pool decks, patios and walkways. Hydrotint can also be mixed into concrete for architectural applications as well as precast, prestressed, tilt-up and other building applications.

Design & Mixing Requirements

Use the same pigment-to-cement ratio, water-to-cement ratio, type and brand of cement and aggregates throughout a project. Different cements, aggregates, mixing times, job site conditions and contractor techniques can alter the final color of a project.

Keep slump below 5 in. (12.5 cm) and water content consistent. High water content causes concrete to appear pale or “faded”. If a higher slump is required, use a GCP water-reducing admixture instead of adding water.

Specify air content of 5% to 7% with air-entraining agents for improved workability and long-term durability in freeze/thaw climates. Schedule loads for consistent mix time.

Deliver and discharge fresh colored concrete in less than 1 1/2 hours. To mix, add Hydrotint Liquid Pigments to the concrete batch and mix at charging speed for at least 5 minutes.

Carbon black can leach out of hardened concrete when exposed to repeated wetting and drying. Concrete colored with carbon black should be sealed to minimize this effect from long-term exposure to weather and water.
Product Advantages

- Verifiable, consistent dosage of pigment
- Easy to produce a broad range of colors
- Rapid pigment dispersion with no bags in the mix
- Light-fast pigments

Compatibility with Other Admixtures and Batch Sequencing

Hydrotint colors are compatible with all standard concrete mixes including those containing blast furnace slag, fly ash and silica fume. However, concrete must be tested as final colors will likely no longer match standard color charts. Calcium Chloride accelerators cause blotching and discoloration and should not be used in colored concrete. Carbon black reduces or negates the effect of air-entraining agents. With air-entrained concrete, iron oxide black should be used instead of carbon black.

All colored concrete mixes must be tested and qualified prior to actual use. Any changes in mix proportions or raw materials may impact the plastic or hardened concrete properties and will require retesting prior to actual use. When working with colored concrete, all ACI guidelines and applicable codes must be followed.

Packaging & Handling

Hydrotint Liquid Pigments are available in 4,000 lbs (1,814 kg) totes; Hydrotint A8090 Black is available in 2,500 lbs (1,134 kg) totes.

GCP is the exclusive distributor of Hydrotint Liquid Pigments throughout the United States and Canada for Ready Mix and Precast/Prestressed concrete. For more information, please contact your local GCP representative.
Dispensing Equipment/Storage

Keep from freezing. Product must be discarded if exposed to frozen temperatures and must be kept below 122 °F (50 °C) at all times. Always load Hydrotint into the Chameleon system as soon as possible. Keep all shipping totes dry. Advanced formulation allows up to a two-year shelf life without hard settlement. When stored greater than two months some agitation may be required for a consistent flow from the storage totes.