COLOR-CRETE™ 7 FOR 28
Pre-Packaged Powder Integral Color for Concrete

Color shown approximate laboratory samples made with Type-1 portland, tan sand, COLOR-CRETE™ pigment and 4 in (10 cm) slump, unsealed. Due to variations of job site conditions, actual colors on the chart can and will vary slightly. Conditions that will cause variation are inconsistent slump (water content), finishing and curing methods, weather conditions, and concrete raw materials, especially in the lower pigment loadings (light, medium). A job-site or test slab sample should be made using specified materials and the finishing and curing techniques to be used. For color consistency, batch to batch uniformity must be maintained.
Best Practices and Procedures

Basic Use
COLOR-CRETE™ 7 FOR 28 is designed for use in all cementitious materials, producing unlimited color effects. The primary applications are cast-in-place, slab-on-grade, pre-cast, tilt-up, concrete pavers and roof tiles. COLOR-CRETE 7 FOR 28 can also be used in concrete curbing, stucco, cast stone and plaster.

Composition
Euclid Chemical/Increte Systems colors are pure synthetic iron-oxide pigments, manufactured to the highest standards. They are high strength and uniform in color and exceed ASTM C979 specifications for integrally-colored concrete. COLOR-CRETE 7 FOR 28 colors are light-fast, lime-proof and totally weather-proof providing a permanent color-fast solution.

Packaging
COLOR-CRETE 7 FOR 28 is packaged in 6 lb (2.7 kg) water-soluble bags.

Specify COLOR-CRETE™ 7 FOR 28
By Name ____________________________
As manufactured by Euclid Chemical/Increte Systems at the rate of _______ bags per yd³ (m³) of concrete.

Batching & Mixing Guide
Use a minimum cement content of 470 lb/yd³ (280.5 kg/m³) Cement substitutes, such as fly ash or slag, should not be used unless Euclid Chemical/Increte Systems is consulted for suggestions. If a cement substitute is used, it must be added to all mixes on the project having the same color. Do not exceed a 5 in (12.7 cm) slump.

At the Plant: Backup the drum to make sure it is empty, because residual concrete and extra water will affect color. Add COLOR-CRETE 7 FOR 28 after headwater has been loaded. Never add color to a dry drum.

On the Job Site: Add COLOR-CRETE 7 FOR 28 directly into the mix. Avoid hitting the drum blades. Mix at charge speed for 10-12 minutes (minimum 75 revolutions). Bring enough concrete onto the chute to check for ribboning. Mix longer if necessary.

Be sure to use the mix design and slump (4 in/10 cm) from truck to truck (if higher slump is required it may be obtained by the use of water reducing admixtures). It is important to use the same cement because different cements may have different shades of gray that can affect final color. Watch the slump closely because varying slumps are an indication of varying water-to-cement ratios, and this can affect final color.

Job Site Samples
A representative job site sample should be produced for each color and/or mix design. These job site samples should be of adequate size to be representative of the actual job and produced with a minimum of 3 yd³ (2.3 m³) 1/3 rd the capacity of the mixer. These samples should be cast using the same aggregates, cement, water-to-cement ratio and finishing techniques to be used on the job. These samples should also be produced and approved prior to starting the first pour on the site.

Job Site Prep
Concrete should be placed over a properly placed and compacted subgrade. This subgrade should be free of mud, standing water, and frost. If pouring over inconsistent subgrades such as wood, plastic, asphalt or existing concrete, know that this will affect the evaporation rate and cure time of the concrete, which can increase the likelihood of efflorescence and cause color variation.

Placing, Finishing and Curing
Concrete must be placed with consistent slump not exceeding 5 in (12.7 cm) maximum. Trailing may begin after bleed water evaporates. Concrete should be stiff or plastic before troweling or brooming. Hard or late troweling will cause burns or dark spots. Do not add water or other foreign materials to surface upon finishing or discoloration will occur.

For exterior installations, apply rotary, broom or other uniformly textured finish for both appearance and slip resistance. Broom, rotary and rough finishes will usually cure more even-colored than smooth troweled surfaces.

Evaporation of water can cause a white hazy film (efflorescence) on the surface of concrete. Efflorescence is more noticeable on colored concrete surfaces giving the appearance of a chalky or faded look. This effect can be reduced or eliminated by proper curing and protection against water penetration.

Efflorescence can be removed with mild acid cleaners formulated to remove efflorescence. Follow manufacturer instructions and always test a small area to insure product will not discolor or etch the surface.

Proper curing is essential to the strength and durability of the finished concrete. Euclid Chemical/Increte Systems recommends the use of Increte Systems’ COLOR-CRETE™ CURE AND SEAL as a curing agent to promote proper hydration and strength gain. Please check with Euclid Chemical/Increte Systems for the various formulas available in your area.

Until it is completely cured, the color of concrete is normally less uniform and sometimes darker than the final color. Allow 28 days for full cure.

Limitations
Variations in cement color type and brand can all produce variations in the final color. Variations in aggregates, finishes, forming materials and methods as well as curing can all affect the final color. It is very important to keep all materials, operations and techniques as consistent as possible. Calcium chloride should not be added to any concrete containing COLOR-CRETE 7 FOR 28 as it can cause discoloration in the finished product.

Vertical Concrete
Prior to pouring, a job site sample should be cast. Whenever using new forms, they should be seasoned with a slurry of matching color. Please contact Euclid Chemical/Increte Systems for more information on matching slurries. All holes, plugs, gaps and joints should be patched or filled to prevent water leaking out of these areas. If this is not performed, the water-to-cement ratio in the area near the leaks will change and discolor the surface. If using internal vibrators, be careful not to allow the vibrator head to come in contact with reinforcing steel or the face of the form because this can create a dark spot on the surface known as a vibrator burn. If using form liners, be sure to remove any cement paste from previous pours and to clean prior to each pour. When pouring integrally-colored concrete, always use a non-staining, form-release agent. To help achieve more color consistency, all forms should be stripped when concrete is of same age.

Maintenance
Integrally-colored concrete can be maintained by sweeping. Spills should be cleaned up as they occur. Dirt may be rinsed with clean water. Heavily-soiled areas may be scrubbed with water and a stiff-bristle brush. For stubborn stains, it is recommended to use Euclid Chemical/Increte Systems’ GREASE-A-WAY™. For best results use this product as directed. Refer to the Technical Data Sheet for GREASE-A-WAY™. For maintenance of large areas, auto scrubbers may be used. To maintain surfaces that have been sealed with one of Euclid Chemical/Increte Systems acrylic sealers, please refer to the Technical Data Sheet for the particular sealer used.

Technical Support
The Euclid Chemical/Increte Systems’ color service laboratory is available to provide expert assistance for your color needs.