



True Tone™ Sweet 16™ Concrete and Mortar Colors

True Tone Sweet 16 colors are concentrated pigments used for integral coloring of concrete and masonry mortar. The pigments are finely milled and specially blended to ensure maximum color tinting with complete, rapid and uniform dispersion throughout the mix. True Tone Sweet 16 colors require no measuring or weighing, are easily mixed, and are environmentally safe.

Basic Uses: True Tone Sweet 16 colors are added to the masonry mortar mix to provide lasting color with a natural finish. They are also used to color concrete, plaster, stucco, terrazzo and other construction materials.

Composition and Materials: True Tone Sweet 16 colors contain iron oxides from reclaimed metal or naturally occurring ores, finely milled and blended with mineral conditioners. They contain no filler or artificial adulterants, and are uniform from package to package and shipment to shipment. The pigments have been micro-pulverized to achieve extremely small particle size with the highest possible tinting strength. They physically bind to grains of cementitious material, changing the overall color of the mixture. True Tone Sweet 16 colors are lime-proof, inorganic, light-fast, weather-resistant, inert to atmospheric



True Tone Sweet 16 Sample Kit and Dose-Sized Packages.

conditions, stable, and free of water soluble content (MC 89 contains up to 25% carbon).

Packaging: True Tone Sweet 16 mortar colors are pre-weighed and packaged at the factory to eliminate guesswork and color variation caused by inaccurate job site weighing. They come in convenient 1½ lbs. (0.68 kg) "dose-sized" boxes (also available in bags).

Colors: A color card and sample kit are available which shows 64 of the colors that can be made with True Tone Sweet 16 pigments. Each column of samples shows a different mix rate for each pigment. The samples show mortar made with 1½, 3, or 6 lbs. (1, 2 or 4 dose-sized

boxes) added for each sack of cement or lime. For light or pastel colors, mix with white cement and white sand.

Limitations: Maximum dose-rate of pigment is limited to 10% of the weight of masonry or mortar cement or portland cement and lime in the mix. When added within recommended limit, True Tone colors will not decrease mortar strength or bond. Exceeding 10% will not enhance the color, and may weaken the mortar mix. The addition of color does not change the concrete's chemical composition, nor does it cause or prevent efflorescence.

TECHNICAL DATA

Applicable Standard: True Tone Sweet 16 colors meet or exceed requirements of ASTM C979, *Standard Specification for Pigments for Integral Colored Concrete*.

Applicable Codes: Color pigments are accepted for use under ASTM C270, *Standard Specification for Mortar for Unit Masonry, Types M, S, N, O and K* and ACI 530.1 / ASCE 6 / TMS 602, *Building Code Requirements and Specifications for Masonry Structures*.

INSTALLATION

Workmanship: Follow recommended masonry construction practices.

Test Panel: The shade or tint of the dry pigment does not match the final mortar color. The pigment must be completely mixed with cementitious materials, water and aggregate and then cured to fully develop the true color. Sample panels of selected colors should be constructed with job site materials and procedures and then fully cured to establish acceptable standards. All materials for sample panel must be mixed in full batch quantities using a mechanical mixer. Mixing by hand can be incomplete and result in streaks. Retain

MORTAR MIX DESIGN

| MORTAR TYPES | PORTLAND CEMENT 94# SACK | HYDRATED LIME 50# SACK | MASONRY or MORTAR CEMENT 70# SACK | SAND (CU FT) | NUMBER OR TRUE TONE DOSE-SIZE BOXES or BAGS (1½ POUNDS EACH) | | | |
|--------------|-----------------------------|---------------------------|--------------------------------------|-----------------|---|-------|--------|------|
| | | | | | LIGHTEST* | LIGHT | MEDIUM | DARK |
| N,S,M | - | - | 1 | 3 | ½ | 1 | 2 | 4 |
| N | 1 | 1 | - | 6 | 1 | 2 | 4 | 8 |
| S | 2 | 1 | - | 9 | 1½ | 3 | 6 | 12 |
| S | 1 | - | 2 | 9 | 1½ | 3 | 6 | 12 |
| M | 2 | ½ | - | 6 | 1½ | 3 | 6 | 12 |
| M | 1 | - | 1 | 6 | 1 | 2 | 4 | 8 |
| 0 | 1 | 2 | - | 9 | 1½ | 3 | 6 | 12 |

* White Cement

sample panel until masonry work is complete and accepted.

Materials: The color of the finished mortar joint will be influenced by the color of the cementitious mortar ingredients and aggregate.

Sand of the same type and amount should be used in every batch. Aggregates should conform to ASTM C144, *Specification for Aggregate for Masonry Mortar*.

Use the same type and brand of cement from the same mill throughout the entire project. Cement should conform to ASTM C91 *Standard Specification for Masonry Cement*, ASTM C150 *Standard Specification for Portland Cement*, or ASTM C1329 *Standard Specification for Mortar Cement*. Lime should conform to Type S, ASTM C207, *Standard Specification for Hydrated Lime for Masonry Purposes*.

Water should be clean and free of deleterious or harmful acids, alkalis and organic materials.

Admixtures may affect cured mortar color. The use of calcium chloride based accelerators and other admixtures containing chloride ions are not recommended with colored mortar.

Mixing: Uniform color requires consistent material proportions and mix times.

Use a mechanical mortar mixer to obtain proper dispersion of pigment. Mix only full batches. Add only required amount (see Mortar Mix Design Table). Once a job site sample panel is approved, use the same mix design, the same type and brand of sand, cement and lime for every mortar batch. Always add color by weight, never by

volume. Mix the same amount of color, cement, lime, sand and water in every batch.

Start mixer and add ¼ batch water, ½ batch sand, and all the color and mix for one minute. Follow with cement and remaining sand and continue mixing. Then slowly add remaining water to bring mortar to the desired consistency. Mix the full batch for at least five minutes.

*beautiful
permanent
economical
easy-to-use*

Use all mortar within 2½ hours of original mixing (1½ hours if ambient temperature is above 80°F or 27°C). Do not retemper or add water to colored mortar, as this will cause color to lighten.

Tooling: Do not tool joints too early or too wet. Tool all mortar joints at the same degree of hardness and same moisture content. Wetter mortar tools lighter, and drier mortar tools to a darker color.

Cleaning: Let mortar splatters harden for 7-14 days, then remove with chisel, trowel, or stiff brush and water before they bond rigidly to units. Prior to further cleaning, allow walls to continue curing for at least three weeks in summer, or four weeks in winter. Do not use muriatic (hydrochloric) acid to clean colored mortar joints.

If cleaning agents are used, pre-wet wall, test and check effects on a small inconspicuous area prior to proceeding. Begin cleaning at the top and work down. Thoroughly rinse wall afterwards with clean water. Follow cleaner manufacturer's instructions.

AVAILABILITY

True Tone Sweet 16 colors are sold by building material dealers, lumber yards, and concrete block and brick distributors throughout the United States.

WARRANTY

True Tone is a product of Davis Colors. Since we have no control over the conditions or use of product, Davis Colors makes NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, and expressly disclaims liability for consequential or incidental damages, whether based on warranty or negligence. Buyer's sole remedy shall be refund or replacement from point of purchase.

MAINTENANCE

No maintenance is required.

TECHNICAL SERVICES

Complete technical information and literature is available from Davis Colors. For custom colors or application questions, contact:



1-800-800-6856
www.daviscolors.com

East Factory

7101 Muirkirk Road, Beltsville, MD 20705
(301) 210-3400 (301) 210-4967 Fax

West Factory

3700 East Olympic Blvd., Los Angeles, CA 90023
(213) 269-7311 (213) 269-1053 Fax

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