

CastCotta™

Terra Cotta Alternative

SYSTEM OVERVIEW:

CastCotta™ is a system of custom-manufactured substitute masonry units that is equivalent in appearance, form and function to terra cotta for use in repair and replacement applications. **CastCotta™** can be produced in both glazed and unglazed formats, to match the original terra cotta materials on any project.



Custom System 45 Type CC™ from Edison Coatings, Inc., is part of a proprietary latex-modified cementitious restoration mortar system with a successful performance history spanning more than 40 years. It is used to produce **CastCotta™** replacement units for terra cotta and brick.

When used to produce substitute unglazed units, **Custom System 45 Type CC** is custom color-matched to the existing clay masonry. To produce substitutes for glazed units, the castings are coated with compatible, custom-matched breathable finishes from Edison Coatings. Depending on original unit appearance, the coatings utilized may include **Elastowall 351**, **Aquathane UA210** and/or **AquaSpex 220**. Finishes are produced in levels of gloss ranging from High Gloss to Extra Flat as required to match original materials.

Because **Custom System 45 Type CC** is strong and tough enough to perform in thin sections, it can be cast as hollow units with 1" wall thickness. Coupled with the material's low density, the units are significantly lighter in weight than precast concrete or stone.

The cast units do not require incorporation of steel reinforcement, thus eliminating the potential for corrosion and spalling.

Linear Coefficient of Thermal Expansion is similar to terra cotta, allowing even the largest units and assemblies to function compatibly with existing terra cotta without the need for sealant joints or modification to mortar joint dimensions.

The cementitious castings do not support combustion.

TYPICAL PROPERTIES: *Custom System 45 Type CC*

| Property | Result | Comments |
|---|-------------------------------------|---|
| Compressive Strength, psi ASTM C109/109M | 6950 psi | Note: Terra cotta units are non-structural |
| Density, lbs./cu. Ft. | 120-140 | Lightweight compared to limestone and cast stone |
| Linear Coefficient of Thermal Expansion | Approx. 4×10^{-6} in/in/°F | Better thermal compatibility with terra cotta than cast stone |
| Freeze-Thaw Resistance ASTM C666, 50 cycles | No change | Excellent freeze-thaw resistance |
| Salt Scaling Resistance ASTM C672, 50 cycles | 1 | Excellent resistance to scaling when subjected to repeated freezing and thawing in the presence of ponded salt solution |
| Water Absorption ASTM C67 | 0.35 – 0.41% | Suitable for severe weather exposures |
| Drying Shrinkage | <0.05% | Low Shrinkage |

FINISHES:

| Property | Elastowall 351 | Aquathane UA210E | AquaSpex 220 |
|--|---|---|---|
| Binder Chemistry | Internally-plasticized self-crosslinking 100% acrylic elastomer | Self-crosslinking aliphatic polyurethane elastomer | Self-crosslinking aliphatic polyurethane elastomer |
| Dry Film Thickness | 5-12 mils | 2-5 mils | 2-25 mils (Formula Dependent) |
| Appearance | Opaque, custom color, matte finish | Clear, custom-color, translucent or opaque; Gloss, Satin, Flat, Extra Flat finishes | Speckled; color flakes in clear film; Gloss, Satin, Flat, Extra Flat finishes |
| % Elongation | Approx. 160% | Approx. 300% | Up to 300% (Formula Dependent) |
| Moisture Vapor Permeance, ASTM E96 | 30.8 perms (2-coat application) | 1 coat: 41 perms 2 coats: 36 perms | Up to 41 perms (Formula Dependent) |
| Tensile Strength | Approx. 400 psi | Approx. 4000 psi | Approx. 4000 psi |
| Performance History in Combination with Custom System 45 substrates | >35 years | >30 years | >15 years |



All products are manufactured in the United States of America.

CastCotta™ is a trademark of **ConSpec Associates, Inc.**, exclusive marketing agents for **Custom System 45 Type CC™**. **Custom System 45 Type CC™** is a trademark of Edison Coatings, Inc. Factory production of **CastCotta™** units is performed by Works In Stone, Inc.

For on-site production of **CastCotta™** units, system components may be purchased by trained installers. Training workshops are held annually, or may be scheduled on demand, either on-site or virtually. For additional information, contact Edison Coatings, Inc.

GENERAL INSTRUCTIONS:

A. **Matching:** Best results are obtained when clean samples, accurately representing the range of required colors, are sent to the Edison Coatings laboratory for custom-matching. Alternatively, any color reference may be used, whether a paint swatch or brushout, a fan deck color from a major paint manufacturer, or a physical sample of any other material.

B. **Profiles and Measurements:** A number of approaches are applicable for measuring and recreating existing units and their profiles. Ideally, full-size units should be sent to Works In Stone, Inc. for reproduction, but alternative methods such as laser measurement, 3D printing, or production of brushed-on rubber molds may also be applicable. How this portion of the project will be handled and by whom, whether by Works In Stone or by others, should be discussed with Works In Stone at the outset.

C. **Mockups and Shop Drawings:** Edison Coatings will produce small quantities of custom color-matched materials as required for Works In Stone to produce mockup panels for evaluation. Works In Stone will also provide shop drawings as required.

D. **Color Blending:** On masonry exhibiting unit-to-unit color variations, more than one custom color may be needed to achieve inconspicuous repairs. Generally, varied blends of patch or finish colors are less conspicuous than a single, uniform repair color.

Prepared: September, 2021



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