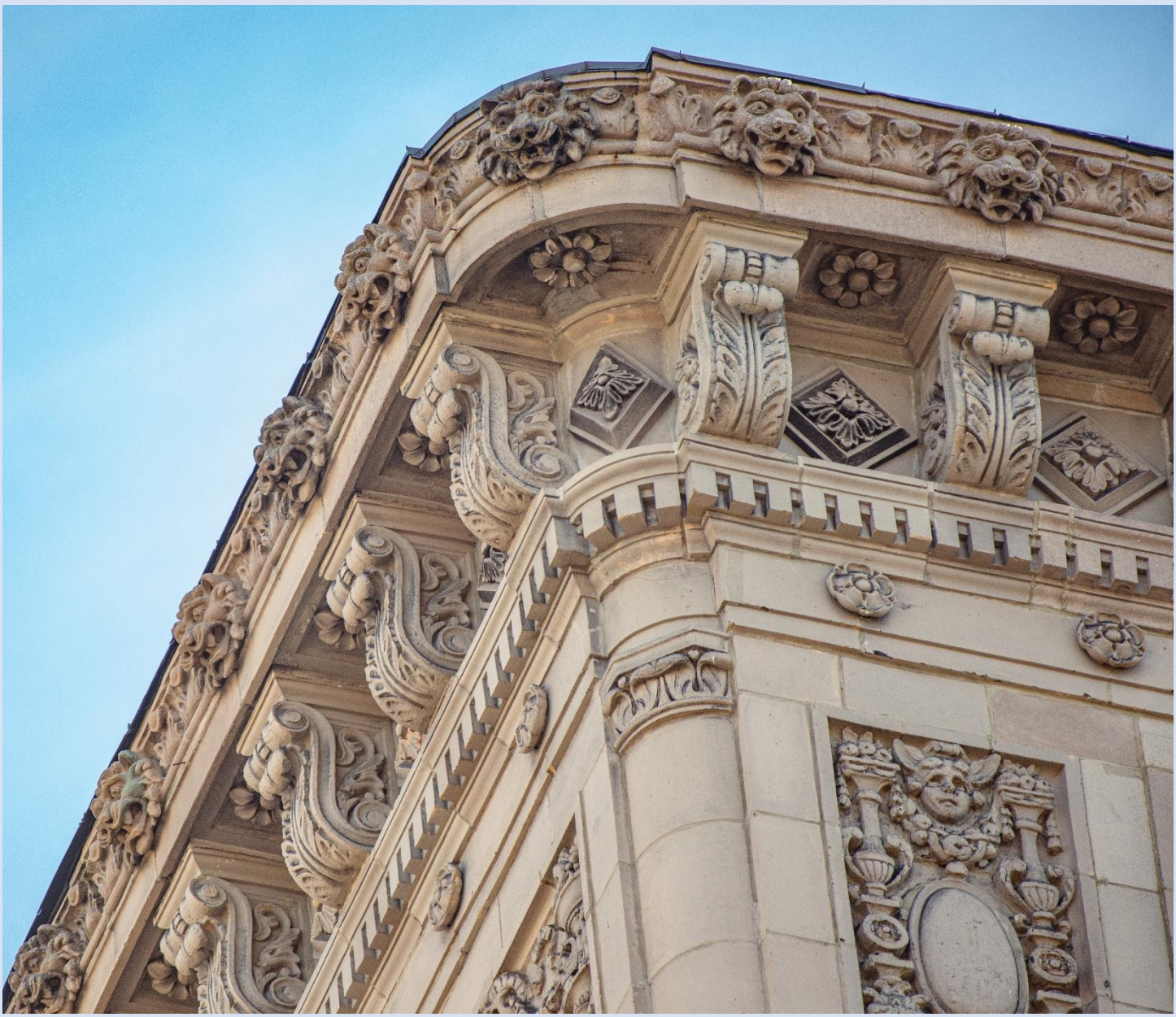
E-Cast 60™

Custom-Manufactured Substitute Masonry Units



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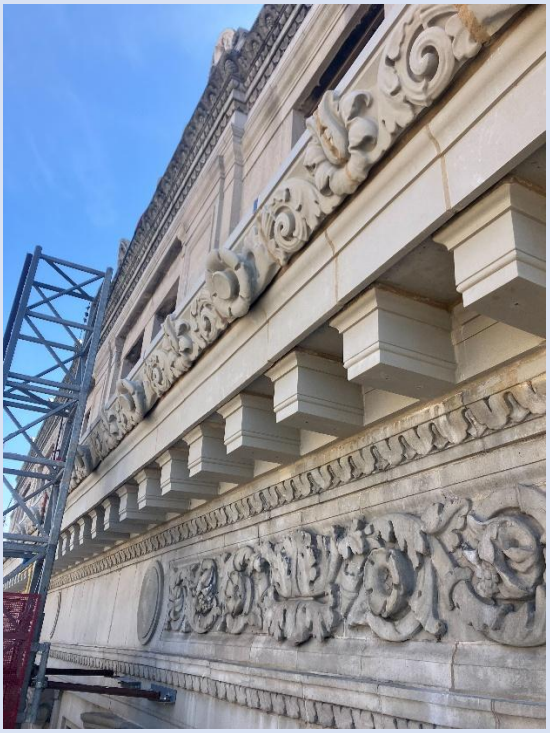


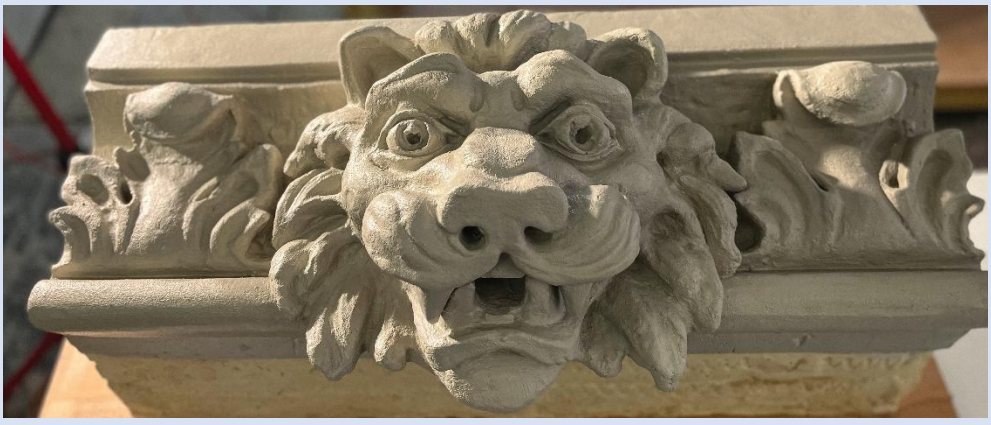
E-CAST 60™ is a system of custom-manufactured casting mortars that are used to create substitute masonry units that reproduce the form, appearance and function of terra cotta and other substrates in repair and replacement applications.

E-CAST 60™ mortars are based on ***Custom System 45™*** casting grades from Edison Coatings, Inc., a proprietary latex-modified cementitious restoration mortar system with a successful performance history spanning more than 40 years.

E-CAST 60™ for terra cotta can be produced in both glazed and unglazed formats, to match the original terra cotta materials on any project. When used to produce substitute unglazed units, ***E-CAST 60™*** 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 ***Sil-Quathane 222, 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 ***E-CAST 60™*** is strong and tough enough to perform in thin section, it can be cast to 1” thickness. Standard hollow web design is 1¼” thickness. Solid units can also be produced.



Coupled with the material’s low density, the units are significantly lighter in weight than precast concrete or stone and closely match original terra cotta.

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

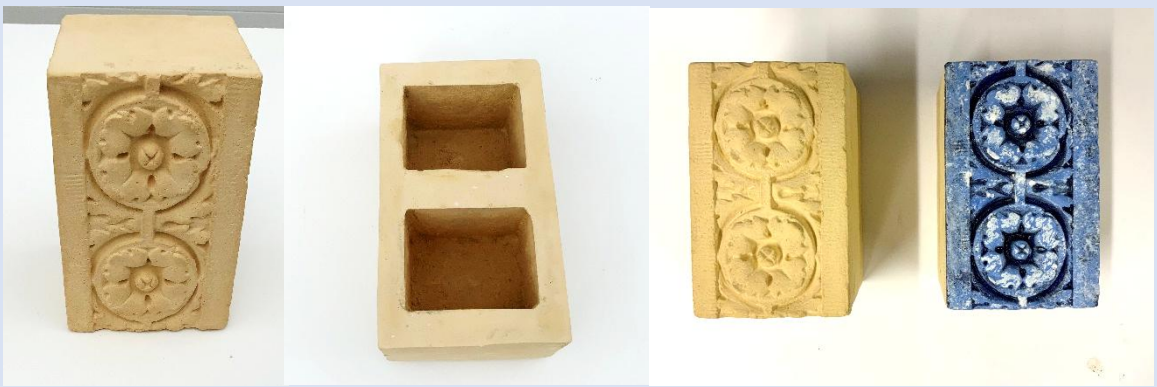
Linear Coefficient of Thermal Expansion is matched to each of the various materials to be replaced. For terra cotta, with its relatively low thermal expansion, closely-matched ***E-CAST 60™*** **Type TC** allows even the largest units and assemblies to function compatibly with existing terra cotta without the need for sealant joints or modification to original mortar joint dimensions.

TYPICAL PROPERTIES: *E-CAST 60™ Type TC*

PROPERTY	RESULTS	NOTES
Compressive Strength, psi ASTM C109/109M	6000 (min.)	Terra cotta units are non-structural
Compressive Strength, psi ASTM C1013	7500-9000	Terra cotta units are non-structural
Flexural Strength, psi, ASTM C293	1850 @ 1” 1785 @ 1 ¼”	Average peak load 407 lbf. @ 1” thickness Average peak load 598 lbf. @ 1 ¼” thickness
Density, lbs./cu. ft.	130	Matches Terra Cotta
Linear Coefficient of Thermal Expansion	3.6-4 x 10^{-6} in/in/°F	Better thermal compatibility with terra cotta than cast stone
Freeze-Thaw Resistance ASTM C666, 300 cycles	No scaling	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	< 2%	Suitable for severe weather exposures
Drying Shrinkage	<0.05%	Volume stable
Bond Strength, Glaze to Casting, ASTM D4541	>500 psi	Manufacturer applied coating exceeded test apparatus max. limit
Shear Bond Strength, psi, ANSI 118.1	>300 psi	

FINISHES: All finishes are mutually compatible, allowing their use in various combinations to visually match decorative and complex original glazes.

Property	Sil-Quathane 222	Aquathane UA210E	AquaSpex 220
Binder Chemistry	Self-crosslinking aliphatic polyurethane/silicone hybrid elastomer	Self-crosslinking aliphatic polyurethane elastomer	Self-crosslinking aliphatic polyurethane elastomer
Dry Film Thickness	2-5 mils	2-5 mils	2-25 mils (Formula Dependent)
Appearance	Clear, custom-color, translucent or opaque; Gloss, Satin, Flat, Extra Flat finishes	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. 100%	Approx. 300%	Up to 300% (Formula Dependent)
Moisture Vapor Permeance, ASTM E96	11-13 perms (2-coat application)	1 coat: 41 perms 2 coats: 36 perms	Up to 41 perms (Formula Dependent)
Tensile Strength	Approx. 4000 psi	Approx. 4000 psi	Approx. 4000 psi
Performance History in Combination with Custom System 45 substrates	No known end of lifespan; Developed 2022	>30 years; no known end of lifespan	>15 years; no known end of lifespan



All products are manufactured in the United States of America.

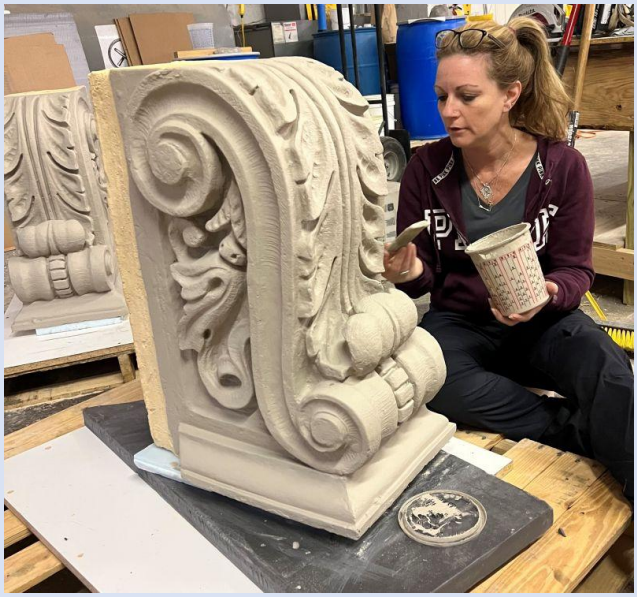
E-CAST 60™ is a trademark of Edison Coatings, Inc.; ***E-CAST 60™*** units are manufactured exclusively by **Works In Stone, Inc.**

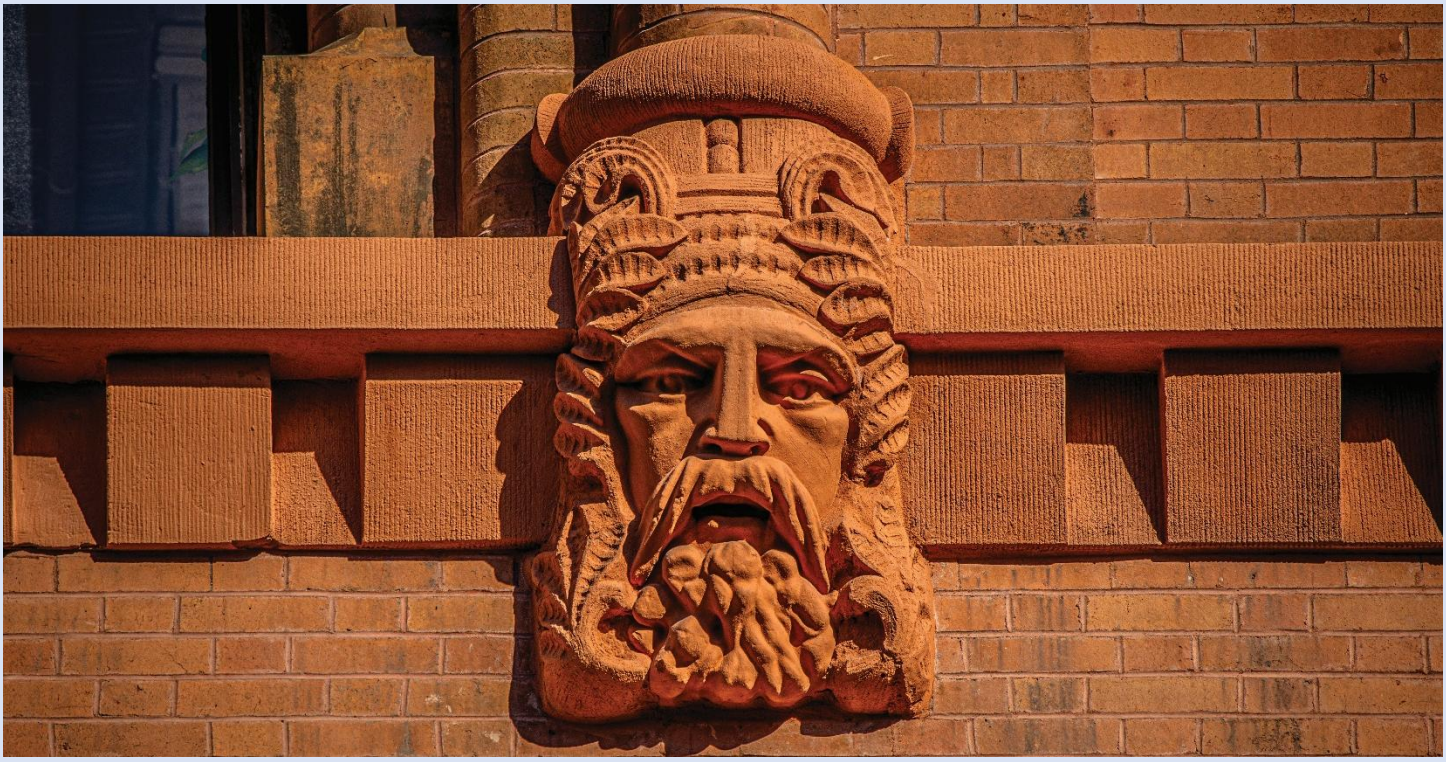
For project price quotations contact Works In Stone:
Estimating@worksinstone.com, 215.589.9097

Guide specifications are available from Edison Coatings and Works In Stone.

Storage & Handling:

Proper care should be taken when handling ***E-CAST 60™*** units before installation, to avoid mechanical damage or prolonged continuous water immersion. Units should not be stacked. For complete handling information, refer to instructions furnished with by Works In Stone.





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