



## Architectural Cast Stone Standards

Component	ASTM Specification	ASTM Description and / or Requirement	Christopher Stuart Cast Stone, Ltd. Specifications
<b>Component</b>	ASTM 1364	Standard Specifications for Architectural Cast Stone	Complies
<b>Physical Properties</b>			
Compressive Strength	ASTM C 1194	Standard Test Method for Compressive Strength of Architectural Cast Stone. Minimum of 6,500 psi required.	Exceeded 6,900 psi
Absorption	ASTM C 1195	Standard Test Method for Absorption of Architectural Cast Stone. Maximum absorption allowed is 6%.	2% Absorption
Air Content	ASTM C173 or C231	Standard Test Method for Air Content of Architectural Cast Stone - only applies to wet cast method. 4 - 8% for freeze-thaw environments.	Complies
Freeze - Thaw	ASTM C 1364	Standard Test Method for Freeze - Thaw of Architectural Cast Stone.	Complies
Linear Shrinkage	ASTM C 426	Standard Test Method for Linear Shrinkage for Architectural Cast Stone. Not to exceed .065%.	Complies
<b>Raw Materials</b>			
Portland Cement	ASTM C 150	Type I or Type III white or gray	Complies
Course Aggregates	ASTM C 33	Only applies to wet cast. Granite, Quartz or Limestone (Except for gradation).	Complies
Fine Aggregates	ASTM C 33	Manufactured or Sands (except for gradation)	Complies
Colors	ASTM C 979	Inorganic iron oxide pigments. Carbon black pigments not used.	Complies
Admixtures	ASTM C 260, ASTM 494/C, ASTM C 618 or ASTM C 989	If admixtures are used, the corresponding ASTM standards must be met. If no ASTM standard exists or if no proven field experience for the product has been met, a sampling of the product will be laboratory tested before delivered to job site.	Complies
Water	N/A	Potable	Complies
Reinforcing Bars	ASTM A 615 or ASTM A615M (ASTM A 185 for wire fabric in wet cast units)	Standard Specification for Deformed and Plain Billet-Steel Bars for Reinforced Concrete. Grade 40 or 60 steel galvanized or epoxy coated when cover is less than 1.5 inches. Only applies when required for the application as detailed by shop drawings.	Complies
Anchoring Devices	N/A	When anchoring devices are required, no corrosive materials are to be used.	Complies
<b>Color and Finish</b>			
Air Voids	N/A	No air voids greater than 1/32". Less than 3 voids per 1". Air voids shall not be obvious under direct sunlight at 5 feet distance.	Yes
Matching	N/A	Matching to sample provided by Architect.	Yes
Texture	N/A	Texture shall be approximately equivalent to sample provided by architect when viewed under direct sunlight at 10 feet distance.	Yes
Chipping	N/A	Product packaged securely to prevent chipping during shipment and delivery, however should it occur, minor chipping is not grounds for rejection of product. Any minor chipping during shipment and delivery should not be visible under direct sunlight at 20 feet distance.	Yes
<b>Reinforcing</b>	N/A	Products are reinforced as indicated by the approved drawings for safe handling.	Yes
<b>Curing</b>	N/A	Product must be cured in a heated cure room at 95% relative humidity for a minimum of 16 hours.	Product is cured in a heated cure room at 95% relative humidity for 72 hours.
<b>Manufacturing Tolerances</b>			
Cross Section Dimensions	N/A	Dimensions shall not deviate by more than 1/8" from the approved shop drawings.	Yes
Length	N/A	Length shall not exceed 1/4" from the approved shop drawings.	Yes
Warping	N/A	Warping shall not exceed the length / 360 or 1/8" - whichever is greater.	Yes
<b>Delivery, Storage, Handling</b>	N/A		Finished product will be marked with identification numbers from the shop drawings for ease of identification. Finished product will be placed securely on pallets with foam protection, shrinkwrapped and labeled. Set Plans and Itemized Shipping List will be included with shipment.