



**TECHNICAL INFORMATION - ASTM**

**Natural Stone Thin Veneer:**

**Westcoast LedgeStone | Micro LedgeStone | Roman Castle | CastleStone**

Technical Information		Value	ASTM Standards
Modulus of rupture, N/mm <sup>2</sup> (square)		46	C-120
Water absorption, % by weight		0.3	C-121
Acid resistance (Weather resistance), Depth of softening mm		0.05	C-217
Abrasion (Resistance to wear)	Average wear, mm	2.6	IS 1237 Guidelines
	Max. Wear on individual Specimen, mm	2.8	

**Natural Stone Thin Veneer:**

**Grigio and Autumn LedgeStone | CastleStone | Fieldstone**

Technical Information			Value	ASTM Standards
Water absorption, % by weight			0.53	C-97
Density (Bulk specific Gravity)			2.60	C-97
Modulus of rupture, N/mm <sup>2</sup> (square)	Dry	Parallel to rift	42	C-99 Guidelines
		Perpendicular to rift	40	C-99
	Wet	Parallel to rift	34	C-99 Guidelines
		Perpendicular to rift	39	C-99
Compressive Strength N/mm <sup>2</sup> (square)	Dry	Parallel to rift	156	C-170
		Perpendicular to rift	185	
	Wet	Parallel to rift	134	
		Perpendicular to rift	153	
Abrasion (resistance to wear)		Average wear, mm	0.9	IS 1237 Guidelines
		Max. Wear on individual specimen, mm	1.0	

## Natural Stone Thin Veneer: Azul Ledgestone and Castlestone

Technical Information			Value	ASTM Standards
Water absorption, % by weight			.26	C-97
Density (Bulk specific Gravity)			2.67	C-97
Modulus of rupture, N/mm <sup>2</sup> (square)	Dry	Parallel to rift	39	C-99 Guidelines
		Perpendicular to rift	30	C-99
	Wet	Parallel to rift	28	C-99 Guidelines
		Perpendicular to rift	32	C-99
Compressive Strength N/mm <sup>2</sup> (square)	Dry	Parallel to rift	172	C-170
		Perpendicular to rift	92	
	Wet	Parallel to rift	126	
		Perpendicular to rift	70	
Abrasion (resistance to wear)		Average wear, mm	2.2	IS 1237 Guidelines
		Max. Wear on individual specimen, mm	2.5	

## Natural Stone Thin Veneer: Tuscan Ledgestone | Castlestone | Fieldstone

Technical Information			Value	ASTM Standards
Water absorption, % by weight			2.17	C-97
Density (Bulk specific Gravity)			2.41	C-97
Modulus of rupture, N/mm <sup>2</sup> (square)	Dry	Parallel to rift	22	C-99 Guidelines
		Perpendicular to rift	23	C-99
	Wet	Parallel to rift	16	C-99 Guidelines
		Perpendicular to rift	18	C-99
Compressive Strength N/mm <sup>2</sup> (square)	Dry	Parallel to rift	121	C-170
		Perpendicular to rift	125	
	Wet	Parallel to rift	106	
		Perpendicular to rift	100	
Abrasion (resistance to wear)		Average wear, mm	2.8	IS 1237 Guidelines
		Max. Wear on individual specimen, mm	3.0	

## 5.7.5 Thin Masonry Veneers

### 5.7.5.1 Thin Masonry Veneers Secured Individually by Mortar Adhesion

#### Notes:

1. Facing material under gravity loading should not put the mortar adhesive under tension.
2. Use of thin veneers adhered on exterior soffits is not recommended.
3. Highly variable absorption characteristics of units will require mortar mix adjustments to ensure bond.

#### 5.7.5.1.1 Limitations

Thin veneers secured by mortar adhesion shall be not more than 40 mm thick and not less than 16 mm thick with individual units

- a. not exceeding 0.1 m<sup>2</sup> in area;
- b. not less than 50 mm in height; and
- c. having a greatest face dimension of not more than 10 times the least face dimension.

#### 5.7.5.1.2 Installation

Thin veneers secured by mortar adhesion shall

- a. be supported by backing consisting of masonry, concrete or cement plaster on metal lath;
- b. extend not more than 3 m above the top of the foundation walls;
- c. have all joints grouted and pointed with a waterproof cement compound;
- d. be secured to the backing by the equivalent of
  - i. metal lath, having corrosion protection in accordance with CSA Standard A370, secured by a minimum of 60 mm galvanized nails spaced not more than 200 mm on center vertically and 400 mm on center horizontally.
  - ii. a 6 mm scratch coat of Type M or S cement plaster over metal lath;
  - iii. a 20 mm mortar bed of Type M or S cement plaster applied over the cured scratch coat;
  - iv. bond coat of Type M or S cement plaster applied to the back of the veneer units and set into the mortar bed; and
- e. be flashed at the top to prevent penetration of moisture.

### 5.7.5.2 Thin Veneers Secured by Metal Anchors

#### 5.7.5.2.1 Limitations

Thin veneers secured by metal anchors shall

- a. have a thickness of not less than 32 mm; and
- b. for each unit, not exceed a face area of 2.25 m<sup>2</sup>, and shall have no dimension greater than 1.8m.

#### 5.7.5.2.2 Installation

Thin veneers secured by metal anchors shall

- a. for each unit, not support any other veneer unit;
- b. have each veneer unit anchored with at least four anchors with the location and spacing of the anchors to be determined by the properties of the cladding and the overall system; and
- c. have anchors to stone and structural backing designed in accordance with CSA Standard A370.

**Note: The anchors in items (b) and (c) require corrosion protection in accordance with CSA Standard A370.**