

TECHNICAL SPECIFICATION DATA SHEET

Elm Brick by Matton Flex



Property (ASTM Standard)	Industry Standard / Req.	Performance	Result	Unit	Check
Hard Body Impact (C1629)	Untreated Exterior Drywall	Treated Assembly: 50 lbf / Class I	PASS	lbf / Class	TRUE
Fire Safety: Flame Spread (E84)	Class A Requirement: 0-25	15	CLASS A	Index	TRUE
Fire Safety: Smoke Developed (E84)	Class A Requirement: 0-450	110	CLASS A	Index	TRUE
Flexural Strength (D790)	Control Strength: 629 psi	Post-Weathering: 464 psi	DURABLE	psi	TRUE
Vapor Permeance (E96)	Vapor Permeable: >10 perms	17.59 perms	BREATHABLE	perms	TRUE
Thermal Stability (D696)	Typical Cladding Goal: Low expansion	6.17 x 10^-6 in/in/degF	STABLE	in/in/degF	TRUE
Water Resistance (D570)	Max Absorption: 5%	1.20%	Excellent	%	TRUE
Adhesion Strength (C297)	Min Requirement: 35 psi	45 psi	PASS	psi	TRUE

ELM BRICK

Technical Installation & Warranty Guide

Product Series: Elm Brick Veneer

Technical Standards: Class A Fire Rated (ASTM E84) | Class I Impact Rated (ASTM C1629)

1. Product Introduction

ElmBrick is a high-performance, flexible brick veneer engineered to provide the authentic aesthetic of traditional masonry with the efficiency of a lightweight, thin-profile material. Composed of specialized resins, quartz, and mineral pigments reinforced with an integrated fiberglass mesh, it offers superior durability for both new construction and non-demolition renovations. Its flexibility allows for seamless application on curved or irregular surfaces without altering building volume.

2. Performance Characteristics

- **High Flexibility:** Engineered for columns, arches, and non-planar substrates.
- **Lightweight Profile:** Reduces structural load and simplifies job-site logistics (Approx. 1.02–1.13 lbs./sq. ft.).
- **Environmental Resilience:** Tested for extreme weather exposure (ASTM D1183) and thermal stability.
- **Universal Compatibility:** Bonds to various substrates, including existing tile and masonry.
- **Aesthetic Authenticity:** Utilizes oxide-based pigments for natural color variations.

3. Approved Applications

- Exterior facades and Exterior Insulation and Finish Systems (EIFS).
- Interior residential, commercial, and retail wall coverings.
- "Over-tile" renovations (non-demolition).
- Standard and moisture-resistant gypsum board (Drywall).
- Concrete, plaster, and cured masonry.

Limitations: Not intended for continuous immersion (e.g., pool interiors) or surfaces subject to active structural movement.

4. Technical Specifications

- **Composition:** Polymer resin, quartz sand, mineral oxides, fiberglass reinforcement.
- **Thickness:** 1/8" to 3/16" (3–5 mm).

- **Weight:** 1.02–1.13 lbs./sq. ft. (3–4 kg/m²).
- **Thermal Range:** -4°F to 158°F (-20°C to +70°C).
- **Vapor Permeance:** 17.59 perms (Vapor Permeable).
- **Fire Rating:** ASTM E84 Class A (Flame Spread 15, Smoke 110).

5. The Installation Protocol

Follow the Mapei specification/warranty for the recommended mortars, grouts, and sealants.

Substrate Preparation

The mounting surface must be:

- Structurally sound, stable, and free of friable material.
- Clean, dry, and free of grease, dust, or efflorescence.
- **Approved Substrates:** Level 3+ finished drywall, cured masonry, cement board, and treated wood.

Recommended Adhesives

Use only high-flexibility, polymer-modified adhesives:

- **Mapei:** Ultraflex LFT or Kerabond T / Keralastic System.
- **Laticrete:** 254 Platinum or 257 Titanium.
- **General Requirement:** Only use Large and Heavy Tile (LFT) mortars with high polymer content to accommodate the veneer's flexibility.
- **Alternatives:** Single-component Polyurethane or MS Polymer adhesives.
- **Prohibited:** Pure cementitious mortars (without polymers), standard silicone, or PVA/vinyl glues.

Step-by-Step Procedure

1. **Adhesive Application:** Apply adhesive to the back of the veneer or the wall using a 3/16" (4 mm) notched trowel.
2. **Setting:** Press the Matton Flex panel into the bed with uniform pressure to ensure 100% transfer.
3. **Alignment:** Level all joints and verify visual continuity between sections.
4. **Cutting:** Use heavy-duty shears or a utility knife to cut through the mesh backing.
5. **Grouting:** Apply grout/thinset/mortar in between the joints using a grout bag. Use the supplied joint spatula to press down the grout/mortar throughout the joints to create a 3D effect on the wall.
6. **After Grouting:** Clean with a regular dry brush to remove the grout residue over the joints.
7. **Recommended Grouts:** Mapei document specs as written above.
8. **Curing:** Allow 12–24 hours for full set depending on ambient humidity.

6. Maintenance and Care

- **Cleaning:** Use pH-neutral detergents and soft cloths.
- **Avoid:** Abrasive pads, acidic cleaners (muriatic acid), or high-alkaline strippers.
- **Power Washing:** Do not use high-pressure nozzles at close range.
- **Periodic Inspection:** For exterior facades, an annual rinse is recommended to remove urban pollutants.

7. Limited Warranty

Elm Surfaces warrants that Elm Brick products are free from manufacturing defects regarding material composition, internal cohesion, and dimensional stability.

- **Structural Warranty:** 10 Years.
- **Surface Integrity Warranty:** 5 Years.

Warranty Validity: This warranty is valid only if the product is installed per official instructions using compatible adhesives on an approved substrate. It does not cover damage from structural settling, impact/abrasion after installation, or exposure to unauthorized chemical treatments.