

## Product Evaluation

SHU241 | 0921

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** SHU-241

**Effective Date:** September 1, 2021

**Re-evaluation Date:** October 2023

**Product Name:** MELFL-Hurricane Screen No. 1 (HS 1), Impact Resistant

**Manufacturer:** MELFL, Inc.  
3870 Dairy Road  
Suite 103  
Melbourne, FL 32904  
(321) 821-4922

### General Description:

The MELFL-Hurricane Screen No. 1 (HS 1) is a permanently mounted impact protective screen that is mounted over exterior openings. The aluminum frame impact screen consists of the following components:

**Frame:** The exterior aluminum frame is constructed from 6005-T6 extruded aluminum. The interior frame is constructed of 6063-T6 aluminum. The corners of the exterior frame are mitered using a 6005-T6 extruded aluminum corner key. The corners for the interior frame are mitered using nylon corner key.

**Screen:** The screen is constructed with minimum 0.70 mm 304 stainless steel black powdered coated wire with 12 strands by 12 strands per square inch.

**Product Identification:** Each screen must have a permanent label that identifies the manufacturer (MELFL, Inc.); the name of the product (Hurricane Screen No. 1 (HS1); the test standards (TAS 201-94, TAS 202-94, TAS 203-94); the missile level (Large Missile Rated); and the drawing number (MELFL1001).

**Limitations:**

**Design Drawings:** Drawing MELFL1001; Hurricane Screen No. 1 (HS1); Sheets 1 through 5; dated May 19, 2020. Each sheet is signed and sealed by Robert James Amoruso, PE on June 29, 2021. The stated drawings will be referred to as "approved drawings" in this evaluation report. A copy of the approved drawings must be available at the job site during inspection.

**Wall Framing Construction:** The screens may be mounted to either pre-cast or cast-in-place concrete (minimum concrete compressive strength of 2,500 psi), hollow or grout-filled concrete block, or minimum Southern Yellow Pine dimension lumber.

**Mounting Conditions:** The screens are mounted directly to the exterior of the structure. Fasteners penetrate through the exterior finish and into the approved substrates.

**Allowable Dimensions:** The screen has a maximum width of 48" and a maximum height of 96". Refer to the approved drawings for an elevation of the screen.

**Allowable Design Pressure Rating:** The allowable design pressure rating for the hurricane screen is +/- 90 psf.

**Impact Resistance:** This assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assemblies passed the equivalent of Missile Level D in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. The shutters may not be installed below a height of 30 feet on essential facilities as defined in ASTM E 1996-14a.

**Minimum Separation Distance:** The minimum separation from glass is specified on the design drawings. The shutters may not be installed below a height of 30 feet on essential facilities as defined in ASTM E 1996-14a.

**Installation:**

**General:** The assembly must be installed in accordance with the manufacturer's installation instructions and this product evaluation report. Detailed installation instructions and design drawings are available from the manufacturer.

**Installation Requirements:** The hurricane screen must be installed in accordance with manufacturer's installation instructions, the approved drawings, and this product evaluation report.

**Note:** Keep the manufacturer's installation instructions and drawings available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.