

TORNADO SAFE .COM

CERTIFIED SHELTERS



IMPACT TEST RESULTS

TEST METHODS

ASTM E330/E330M-14, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E 1996-05, Standard Specification for Performance of Exterior Windows, Glazed Curtain Walls, Doors and Storm Shutters Impacted by Wind Borne Debris in Hurricanes.

ICC 500-2008, Standard for the Design and Construction of Storm Shelters. Chapters 804 and 806.3.1.1

FEMA 361, Design and Construction Guidance for Community Safe Rooms Sections 3.3.2.a and 3.3.2.c

Impact Test	Pass (8 Impacts)	Pass
Design Pressure	+11,970 Pa (+250.00 psf)	No Damage
Uniform Load Structural Test Pressure	+14,364 Pa (+300.00 psf)	No Damage

ASTM E 1996, LARGE MISSILE
Conditioning Temperature: 70°F Missile Weight: 15lbs Missile Length: 160" Muzzle Distance From Test Specimen: 23'

IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: 1/2"	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: N/A	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: N/A	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: 1/2"	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: N/A	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 100mph	DEFLECTION: N/A	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 67mph	DEFLECTION: N/A	RESULTS: Pass
IMPACT #		MISSILE VELOCITY: 67mph	DEFLECTION: N/A	RESULTS: Pass