

PLASKOLITE

FLORIDA BUILDING CODE

Florida Building codes are extensive and comprehensive. The end user is encouraged to review the Code carefully to ensure the information they are seeking is up to date and accurate.

Plaskolite Approved Products

Numerous TUFFAK® product grades are approved for use in hurricane zones by the Miami-Dade County RER-Product Control Section. These grades include: TUFFAK® GP, SL, UV, SK1, AR, Mak 15, EX, and Hygard laminates including CG and BR. A complete listing of grades and gauges can be found under Plaskolite's Miami-Dade Notice of Acceptance (NOA).

MISSILE IMPACT STANDARDS AND TESTING

Plaskolite does not offer structural design guidance for use in a high velocity hurricane zone (HVHZ) due to the following reason:

According to Florida Building Code, *“storm shutter design calculations and detailed drawings, including attachment to the main structure, shall be prepared by and **bear the seal of a qualified Florida-registered delegated engineer**, or if qualified to prepare such design, by the engineer or architect of record, which architect or engineer shall be proficient in structural design. The architect or engineer of record shall, in all instances, review and approve documents prepared by the delegated engineer.”* Meaning, each product's total design, including framing and glazing attachments, is considered unique and different and must undergo rigorous inspection prior to approval. Since Plaskolite cannot anticipate each and every design application for our products, we cannot offer a Missile Impact rated/ FL approved design.

MISSILE LEVEL D IMPACT CRITERIA WINDOWS AND DOORS

Window and door configurations and sizes certified for use in Florida's Wind-borne Debris Region and High Velocity Hurricane Zone, can reach ultimate wind speeds exceeding 160 mph. Products certified to meet Missile Level D requirements are impacted twice with a 9 lb 2x4 board shot at 50 ft/sec (34 mph), and then are subjected to positive and negative design pressures.

MISSILE LEVEL C IMPACT CRITERIA SKYLIGHTS

Skylights certified to meet Missile Level C requirements for Wind Zones 1-4, are impacted with a 4.5 lb 2x4 board shot at 40 ft/sec (27 mph), and then are subjected to positive and negative design pressures.

WIND ZONES

The ICC Standard for Residential Construction in High Wind Regions specifies that doors, skylights, and windows in the windborne debris region shall be either impact resistant or protected with an impact resistant covering. The American Society of Civil Engineers' newly developed wind speed maps that define the wind-borne debris region as regions within one mile of the coastal mean high water line and where ultimate wind speeds reach 130mph or greater.

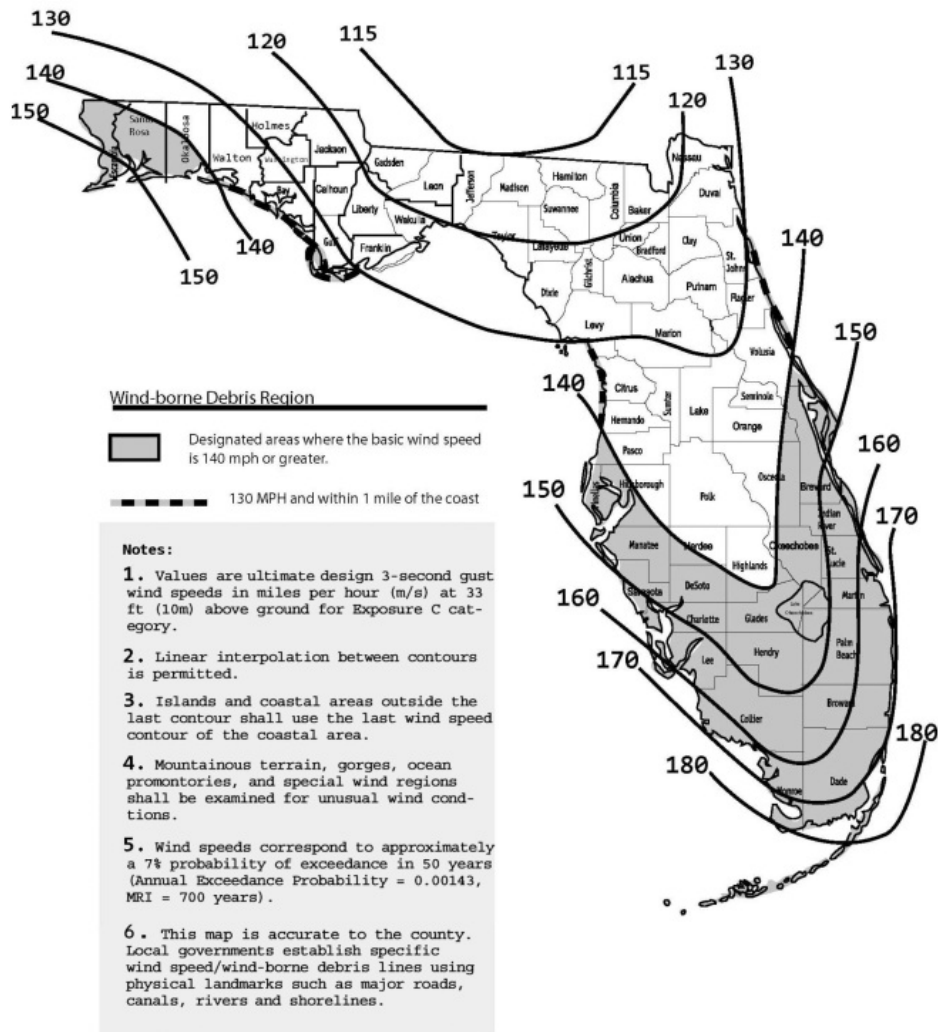
Per the Florida Building Commission 2017 Code, ASTM E1996 wind zones are to be specified as follows:

Wind Zone 1: $130 \text{ mph} \leq \text{basic wind speed} < 140 \text{ mph}$

Wind Zone 2: $140 \text{ mph} \leq \text{basic wind speed} < 150 \text{ mph}$ at greater than 1.6 km (one mile) from the coastline. The coastline shall be measured from the mean high-water mark.

Wind Zone 3: $150 \text{ mph} (58 \text{ m/s}) \leq \text{basic wind speed} \leq 170 \text{ mph} (76 \text{ m/s})$, or $140 \text{ mph} (54 \text{ m/s}) \leq \text{basic wind speed} \leq 170 \text{ mph} (76 \text{ m/s})$ and within 1.6 km (one mile) of the coastline. The coastline shall be measured from the mean high-water mark.

Wind Zone 4: basic wind speed $> 170 \text{ mph} (76 \text{ m/s})$.



Picture reference 2017 Florida Building Code.

2017 Florida Building Code
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

OCCUPANCY CATEGORY	NATURE OF OCCUPANCY
I	<p>Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to:</p> <ul style="list-style-type: none"> • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities. • Screen enclosures
II	<p>Buildings and other structures except those listed in Occupancy Categories I, III and IV</p>
III	<p>Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to:</p> <ul style="list-style-type: none"> • Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. • Buildings and other structures containing Group E occupancies with an occupant load greater than 250. • Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500. • Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. • Group I-3 occupancies. • Any other occupancy with an occupant load greater than 5,000.^a • Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV. • Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>Florida Fire Prevention Code</i>; and <p>Are sufficient to pose a threat to the public if released. ^b</p>
IV	<p>Buildings and other structures designated as essential facilities, including but not limited to:</p> <ul style="list-style-type: none"> • Group I-2 occupancies having surgery or emergency treatment facilities. • Fire, rescue, ambulance and police stations and emergency vehicle garages. • Designated earthquake, hurricane or other emergency shelters. • Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. • Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures. • Buildings and other structures containing quantities of highly toxic materials that: • Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>Florida Fire Prevention Code</i>; and • Are sufficient to pose a threat to the public if released. ^b • Aviation control towers, air traffic control centers and emergency aircraft hangars. • Buildings and other structures having critical national defense functions. • Water storage facilities and pump structures required to maintain water pressure for fire suppression

^a For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

^b Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

DISCLAIMER:

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.