

ROOFING APPLICATION STANDARD (RAS) No. 128

STANDARD PROCEDURE FOR DETERMINING APPLICABLE WIND DESIGN PRESSURES FOR LOW SLOPE ROOF

1. Scope

1.1 This roofing application standard has been developed to provide a responsive method of complying with the requirements of Chapters 15 & 16 (High-Velocity Hurricane Zones) of the *Florida Building Code, Building*. Compliance with the requirements and procedures herein specified, where the pressures (P_{asd}) have been determined based on Table 1 or 2, of this standard, as applicable, do not require additional signed and sealed engineering design calculations. All other calculations must be prepared, signed and sealed by a professional engineer or registered architect.

2. Definitions

2.1 For definitions of terms used in this application standard, refer to ASTM D 1079 and the *Florida Building Code, Building*.

3. Applicability

- 3.1 This application standard applies to:
- a. exposure C and D category buildings; and
 - b. building heights of less than or equal to 40 feet; and
 - c. roof incline (pitch) is not greater than $1/2$ in.:12 in.
 - d. risk category II buildings
- 3.2 Using Table 1 or 2 below, as applicable, determine the minimum design pressure for each respective roof area, which corresponds to the applicable roof height range.
- 3.3 Referencing the selected Roof Assembly Product Approval, check that the listed maximum allowable design pressure for the particular approved system meets or exceeds those listed in Table 1 or Table 2 above, as applicable.

TABLE 1 — RISK CATEGORY II EXPOSURE CATEGORY “C” ^{1,2} MINIMUM DESIGN WIND UPLIFT PRESSURES, IN PSF FOR FIELD [$P_{asd}(1)$], PERIMETER [$P_{asd}(2)$] AND CORNER [$P_{asd}(3)$] AREAS OF ROOFS FOR EXPOSURE “C” BUILDINGS			
Roof mean height (below)	$P_{asd}(1)$ (Field)	$P_{asd}(2)$ (Perimeter)	$P_{asd}(3)$ (Corners)
20	-42.8	-71.7	-108.0
25	-44.8	-75.1	-113.0
30	-46.4	-77.8	-117.2
35	-48.1	-80.6	-121.3
40	-49.4	-82.9	-124.7

¹ Calculated in accordance with ASCE 7.

² $P_{asd} = 0.6P_{ult}$

**TABLE 2 — RISK CATEGORY II EXPOSURE CATEGORY “D”^{1,2}
MINIMUM DESIGN WIND UPLIFT PRESSURES, IN PSF FOR FIELD [$P_{asd}(1)$], PERIMETER [$P_{asd}(2)$]
AND CORNER [$P_{asd}(3)$] AREAS OF ROOFS FOR EXPOSURE “D” BUILDINGS**

Roof mean height (below)	$P_{asd}(1)$ (Field)	$P_{asd}(2)$ (Perimeter)	$P_{asd}(3)$ (Corners)
20	-51.4	-86.2	-129.7
25	-53.4	-89.5	-134.7
30	-55.0	-92.3	-138.9
35	-56.4	-94.5	-142.3
40	-57.7	-96.8	-145.6

¹ Calculated in accordance with ASCE 7.

² $P_{asd} = 0.6P_{ult}$