DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1H

Hip Roof – ASCE 7-22 (3:12 and Over), Category II Buildings (psf)
Required Design Uplift Pressures (psf) For Underlayment and Ridge Attachment

Roof Exposure	Roof Zones	Mean Roof Heights	115 Design Pressure (psf)	120 Design Pressure (psf)	130 Design Pressure (psf)	140 Design Pressure (psf)	150 Design Pressure (psf)	160 Design Pressure (psf)	170 Design Pressure (psf)	180 Design Pressure (psf)	190 Design Pressure (psf)
Exp B	All	0-15	31.4	34.2	40.2	46.6	53.5	60.8	68.7	77.0	85.8
		20	31.4	34.2	40.2	46.6	53.5	60.8	68.7	77.0	85.8
		30	31.4	34.2	40.2	46.6	53.5	60.8	68.7	77.0	85.8
		40	33.2	36.2	42.5	49.2	56.5	64.3	72.6	81.4	90.7
		50	35.5	38.6	45.3	52.6	60.3	68.7	77.5	86.9	96.8
		60	37.3	40.6	47.6	55.2	63.4	72.1	81.4	91.3	101.7
Exp C	All	0-15	38.2	41.5	48.8	56.6	64.9	73.9	83.4	93.5	104.2
		20	40.4	44.0	51.6	59.9	68.7	78.2	88.3	99.0	110.3
		30	44.0	47.9	56.2	65.2	74.9	85.2	96.1	107.8	120.1
		40	46.7	50.8	59.7	69.2	79.4	90.4	102.0	114.4	127.4
		50	48.9	53.3	62.5	72.5	83.3	94.7	106.9	119.9	133.6
		60	50.7	55.2	64.8	75.2	86.3	98.2	110.9	124.3	138.5
Exp D	All	0-15	46.2	50.3	59.1	68.5	78.7	89.5	101.0	113.3	126.2
		20	48.5	52.8	62.0	71.9	82.5	93.9	106.0	118.8	132.3
		30	52.1	56.7	66.5	77.2	88.6	100.8	113.8	127.6	142.2
		40	54.8	59.6	70.0	81.2	93.2	106.0	119.7	134.2	149.5
		50	57.0	62.1	72.9	84.5	97.0	110.4	124.6	139.7	155.6
		60	58.8	64.0	75.2	87.2	100.1	113.8	128.5	144.1	160.5

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5:12 for roof zone 3.

2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.

3. For actual uplift resistance values for Foam Adhesives or Mortar installations please see the Adhesive manufacturers formal product approvals for additional information.

DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1G

Gable Roof – ASCE 7-22 (3:12 and Over), Category II Buildings
Pressures for Underlayment and Ridge Attachment (psf)

Roof Exposure	Roof Zones	Mean Roof Heights	115 Design Pressure (psf)	120 Design Pressure (psf)	130 Design Pressure (psf)	140 Design Pressure (psf)	150 Design Pressure (psf)	160 Design Pressure (psf)	170 Design Pressure (psf)	180 Design Pressure (psf)	190 Design Pressure (psf)
Exp B	All	0-15	43.5	47.4	55.6	64.5	74.0	84.2	95.1	106.6	118.8
		20	43.5	47.4	55.6	64.5	74.0	84.2	95.1	106.6	118.8
		30	43.5	47.4	55.6	64.5	74.0	84.2	95.1	106.6	118.8
		40	46.0	50.1	58.8	68.2	78.3	89.0	100.5	112.7	125.6
		50	49.1	53.5	62.8	72.8	83.5	95.1	107.3	120.3	134.0
		60	51.6	56.2	65.9	76.5	87.8	99.9	112.7	126.4	140.8
Exp C	All	0-15	52.8	57.5	67.5	78.3	89.9	102.3	115.5	129.4	144.2
		20	52.8	60.9	71.5	82.9	95.2	108.3	122.3	137.1	152.7
		30	60.9	66.3	77.8	90.3	103.6	117.9	133.1	149.2	166.3
		40	64.6	70.4	82.6	95.8	110.0	125.1	141.3	158.4	176.5
		50	67.8	73.8	86.6	100.4	115.3	131.2	148.1	166.0	184.9
		60	70.2	76.5	89.8	104.1	119.5	136.0	153.5	172.1	191.7
Exp D	All	0-15	64.0	69.7	81.8	94.9	108.9	123.9	139.9	156.9	174.8
		20	67.1	73.1	85.8	99.5	114.2	130.0	146.7	164.5	183.2
		30	72.1	78.5	92.1	106.9	122.7	139.6	157.6	176.7	196.8
		40	75.8	82.6	96.9	112.4	129.0	146.8	165.7	185.8	207.0
		50	78.9	86.0	100.9	117.0	134.3	152.8	172.5	193.4	215.5
		60	81.4	88.7	104.1	120.7	138.5	157.6	177.9	199.5	222.3

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5:12 for roof zone 3.

2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.

3. For actual uplift resistance values for Foam Adhesives or Mortar installations please see the Adhesive manufacturers formal product approvals for additional information.

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