



Ontario Load Bearing Specifications for Plastic Skylight Domes.

This standard presents strength (ultimate load) values for one-piece thermoformed plastic skylight domes for exterior application. Values are based on the average of actual test values. NO SAFETY FACTORS HAVE BEEN APPLIED TO THESE LOADS.

The table represents the uniform positive (downward) load bearing capacity in pounds per square foot. Under negative (uplift) loading the tables represent the resistance of the plastic dome to uniform loads applied normal to the interior surface of the dome. REGARDLESS OF APPLICATION, THE LOAD VALUES SHOWN IN THE TABLES DO NOT REPRESENT THE ABILITY OF THE SKYLIGHT DOME TO SUPPORT THE WEIGHT OF A PERSON.

The dome testing for the development of this standard was performed with the flanges of the domes simply supported and free to rotate. The load resistance of a dome will generally increase when the dome flanges are clamped to the skylight frame.

The table developed by this standard does not include consideration of the strength requirements of structural framing or support systems. In designing such systems, the dome material is to be considered as the medium of transfer of loads. The structure must be capable of withstanding the load transferred.

Ultimate Load Capacity for Free Blown Domes , psf						
E= 450,000		Dome Thickness = 0.118 inches			Aspect Ratio = 1.0	
Width (inches)	Dome Rise (%)					
	10	15	20	25	30	35
20	178	307	400 maximum			
30	79	136	180	202	206	197
40	45	77	101	114	116	111
50		49	65	73	74	71
60		34	45	51	51	49
70			33	37	38	36
80						
90			Verify by test only			
100			Verify by test only			

Note: Standard dome rise for Artistic products is 20% - 25%.

Information collected from Publication No. AAMA 1601-93

Ultimate Load Capacity for Free Blown Domes, psf						
E=450,000		Dome Thickness=0.177 inches			Aspect Ratio =1.0	
Width (inches)	Dome Rise (%)					
	10	15	20	25	30	35
20						
30	178	307				
40	100	173	228	256	260	250
50	64	111	146	164	167	160
60	45	77	101	114	116	111
70	33	56	74	84	85	82
80		43	57	64	65	62
90		34	45	51	51	49
100	Verify by test only		36	41	42	40

Note 1: Multiply these values by the "frame factor" and divide by an appropriate safety factor.
 Note 2: Standart dome rise for Artistic skylight products is 20%-25%.

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