

Ontario Load Bearing Specifications for Plastic Skylight Domes.

This standard presents recommended strength (ultimate load) values for one-piece thermoformed plastic skylight domes for exterior application. Recommended 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%.