

TABLE III. Total flatness tolerance in microinches

Rectangular plates		Grade	Grade	Grade
Width	Length	AA	A	B
Inches				
12	12	50	100	200
12	18	50	100	200
18	18	50	100	200
18	24	75	150	300
24	24	75	150	300
24	36	100	200	400
24	48	150	300	600
36	36	150	300	600
36	48	200	400	800
36	60	250	500	1000
36	72	300	600	1200
48	48	200	400	800
48	60	300	600	1200
48	72	350	700	1400
48	96	500	1000	2000
48	120	700	1400	2800
60	120	750	1500	3000
72	96	600	1200	2400
72	144	1100	2200	4400
Round plates				
diameter				
12		50	100	200
18		50	100	200
24		75	150	300
36		100	200	400
48		125	250	500

3.3.4.1 Flatness tolerances for unlisted surface plate sizes. The flatness tolerances for unlisted grade AA plates are obtained from the following formula:

$$\text{Total flatness tolerance in microinches} = 40 + \frac{D^2}{25}$$

where D = diagonal or diameter of the plate in inches. The calculated flatness tolerance for grade AA is rounded off to the nearest 25 microinches. The tolerances on the A and B grade plates are 2 and 4 times, respectively, those for grade AA.

3.3.4.2 Working surface area. The flatness tolerance shall not include the surface along the edge of each size plate as specified in table IV.

TABLE IV. Restrictions on surface area for flatness tolerance - all values in inches

Diameter or diagonal of plate	Distance in from edges All grades
12 thru 48	1.0
over 48	1.5