

Table 2-4.5-1
Annealing Schedule for Acrylic Windows

Part A: Minimum Heating Times of Elevated Temperature Annealing of Acrylic				
Heat Time [Note (1)], hr (h), for Acrylic Placed in a Forced-Air Circulation Oven Maintained at a Set Temperature Within $\pm 5^{\circ}\text{F}$ ($\pm 2.8^{\circ}\text{C}$)				
Thickness, in. (mm)	230°F (110°C), Max.	212°F (100°C), Min.	195°F (90°C), Min.	185°F (85°C), Min.
0.50 (12.70)	3.5	4.0	6.0	11.0
0.75 (19.05)	4.4	4.9	6.9	11.8
1.00 (25.40)	5.3	5.9	7.7	12.6
1.25 (31.75)	6.2	6.8	8.6	13.4
1.50 (38.10)	7.1	7.7	9.4	14.1
1.75 (44.45)	8.0	8.6	10.3	14.9
2.00 (50.80)	8.9	9.6	11.1	15.7
2.25 (57.15)	9.8	10.5	12.0	16.5
2.50 (63.50)	10.6	11.4	12.9	17.3
2.75 (69.85)	11.5	12.4	13.7	18.1
3.00 (76.20)	12.4	13.3	14.6	18.9
3.25 (82.55)	13.3	14.2	15.4	19.6
3.50 (88.90)	14.2	15.1	16.3	20.4
3.75 (95.25)	15.1	16.1	17.1	21.2
4.00 (101.60)	16.0	17.0	18.0	22.0
>4.00 (>101.60)	4	6	6	6

(per in. of additional thickness over 4)

Part B: Maximum Cooling Rates for Acrylic Subjected to Elevated Annealing Temperatures					
Thickness, in. (mm)	Maximum Cooling Rate, $^{\circ}\text{F/hr}$ ($^{\circ}\text{C/h}$)	Time, hr (h), to Cool Acrylic From the Indicated Annealing Temperature at the Maximum Permissible Rate to the Maximum Allowable Removal Temperature of 120°F (49°C)			
		230°F (110°C)	212°F (100°C)	195°F (90°C)	185°F (85°C)
0.500 to 0.750, incl. (13 to 19, incl.)	25 (14)	4.5	3.5	3	2.5
0.875 to 1.125, incl. (22 to 28, incl.)	18 (10)	6	5	4	4
1.250 to 1.500, incl. (32 to 38, incl.)	13 (7.2)	8.5	7	6	5
1.750 (44)	11 (6.1)	10	8.5	7	6
2.000 (50)	10 (5.5)	11	9	7.5	6.5
2.250 (57)	9 (5)	12.5	10	8.5	7.5
2.500 (64)	8 (4.5)	14	11.5	9.5	8.5
3.000 (75)	7 (4)	16	13	11	9.5
3.250 (82)	6 (3.5)	18.5	15	12.5	11
3.500 (89)	6 (3.5)	18.5	15	12.5	11
3.750 (92)	6 (3.5)	18.5	15	12.5	11
4.000 (100)	5 (3)	22	18	15	13
4.000 to 6.000, incl. (100 to 150, incl.)	4 (2)	27.5	23	19	16.5
6.000 to 8.000, incl. (150 to 200, incl.)	3 (1.5)	37	30.5	25	22
8.000 to 10.000, incl. (200 to 250, incl.)	2 (1)	55	45.5	37.5	32.5
10.000 to 12.000, incl. (250 to 300, incl.)	1 (0.5)	110	91	75	65

NOTE: (1) Includes period of time required to bring part up to annealing temperature, but not cooling time.