



BULLSEYE

GLASS CO.

ANNEALING THICK SLABS

This annealing chart has been formulated for use with Bullseye clear glass. It is derived from Corning’s method as shown in McLellan and Shand.* It is based on a flat slab of uniform thickness that is set up in such a fashion that it can cool equally from top and bottom.

If the piece is not set up in such a fashion that it can cool equally from top and bottom or is anything besides a flat slab of uniform thickness, select an annealing cycle for a piece that is twice the thickness of the thickest area of the piece. Even a very conservative annealing cycle may not work if the kiln is not capable of cooling the work uniformly.

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THICKNESS	ANNEAL SOAK TIME	INITIAL COOLING RATE	INITIAL COOLING RANGE	2nd COOLING RATE	2nd COOLING RANGE	FINAL COOLING RATE	FINAL COOLING RANGE	TOTAL MINIMUM TIME
inches	@ 900 °F	°F/hr	°F	°F/hr	°F	°F/hr	°F	Hours
mm	@ 482 °C	°C/hr	°C	°C/hr	°C	°C/hr	°C	
0.5 in	2 hr	100	900–800	180	800–700	600	700–70	~5 hr
12 mm		55	482–427	99	427–371	330	371–21	
0.75 in	3 hr	45	900–800	81	800–700	270	700–70	~9 hr
19 mm		25	482–427	45	427–371	150	371–21	
1.0 in	4 hr	27	900–800	49	800–700	162	700–70	~14 hr
25 mm		15	482–427	27	427–371	90	371–21	
1.5 in	6 hr	12	900–800	22	800–700	72	700–70	~28 hr
38 mm		6.7	482–427	12	427–371	40	371–21	
2.0 in	8 hr	6.8	900–800	12	800–700	41	700–70	~47 hr
50 mm		3.8	482–427	6.8	427–371	22	371–21	
2.5 in	10 hr	4.3	900–800	8	800–700	26	700–70	~70 hr
62 mm		2.4	482–427	4.3	427–371	14.4	371–21	
3.0 in	12 hr	3	900–800	5.4	800–700	18	700–70	~99 hr
75 mm		1.7	482–427	3.1	427–371	10	371–21	
4.0 in	16 hr	1.7	900–800	3.1	800–700	10	700–70	~170 hr
100 mm		0.94	482–427	1.7	427–371	5.6	371–21	
6.0 in	24 hr	0.75	900–800	1.3	800–700	4.5	700–70	~375 hr
150 mm		0.42	482–427	0.76	427–371	2.5	371–21	
8.0 in	32 hr	0.42	900–800	0.76	800–700	2.5	700–70	~654 hr
200 mm		0.23	482–427	0.42	427–371	1.4	371–21	

* McLellan and Shand (1984), *Glass Engineering Handbook*, 3rd Edition, New York, McGraw Hill.