GLASS

1 Annealed (raw) glass when produced, is cooled slowly, to minimize internal stress as it exits the float line and furnace. It is flexible in meeting performance or aesthetic requirements where high light transmission and visibility are desired. Clear float glass offers excellent optical properties, and can transmit as much as 90% of sun's visible spectrum. Glass strength is in direct proportion to its thickness. Annealed glass can be cut, and or fabricated as desired.

2 Annealed tinted glass (heat–absorbing) is available in various hues that offer both performance and aesthetic benefits. Compared to clear float glass, tinted (heat–absorbing) float glass significantly lowers the transmission of solar heat into a building's interior. Heat–absorbing glass provides a means of controlling the quality, and quantity of light transmission. Lawson carries inventory of both bronze and gray tinted glass.

3 Heat strengthened glass which is about twice as strong as annealed glass, is produced by cutting annealed glass to size, heating it to near softening point, then cooling it faster than annealed, to produce a stronger harder glass than common float glass.

4 Tempered glass which is about three to five times stronger than annealed glass, is made by cutting annealed glass to size, heating it to near softening point, and quickly quenching it with forced air which brings it to its rigid state and hardens it much faster than heat strengthened glass. Tempered glass cannot be cut. Tempered glass, if broken, creates small crystals unlike annealed glass which breaks into various sized sharp edged shards.

5 Graylite float glass (also called turtle glass) is a distinctive neutral dark gray glass which provides glare control and color contrast, combined with excellent solar heat reduction performance. Graylite can be heat strengthened or fully tempered. Graylite is not a coated glass. The tinted make-up of the glass produces its energy saving results.

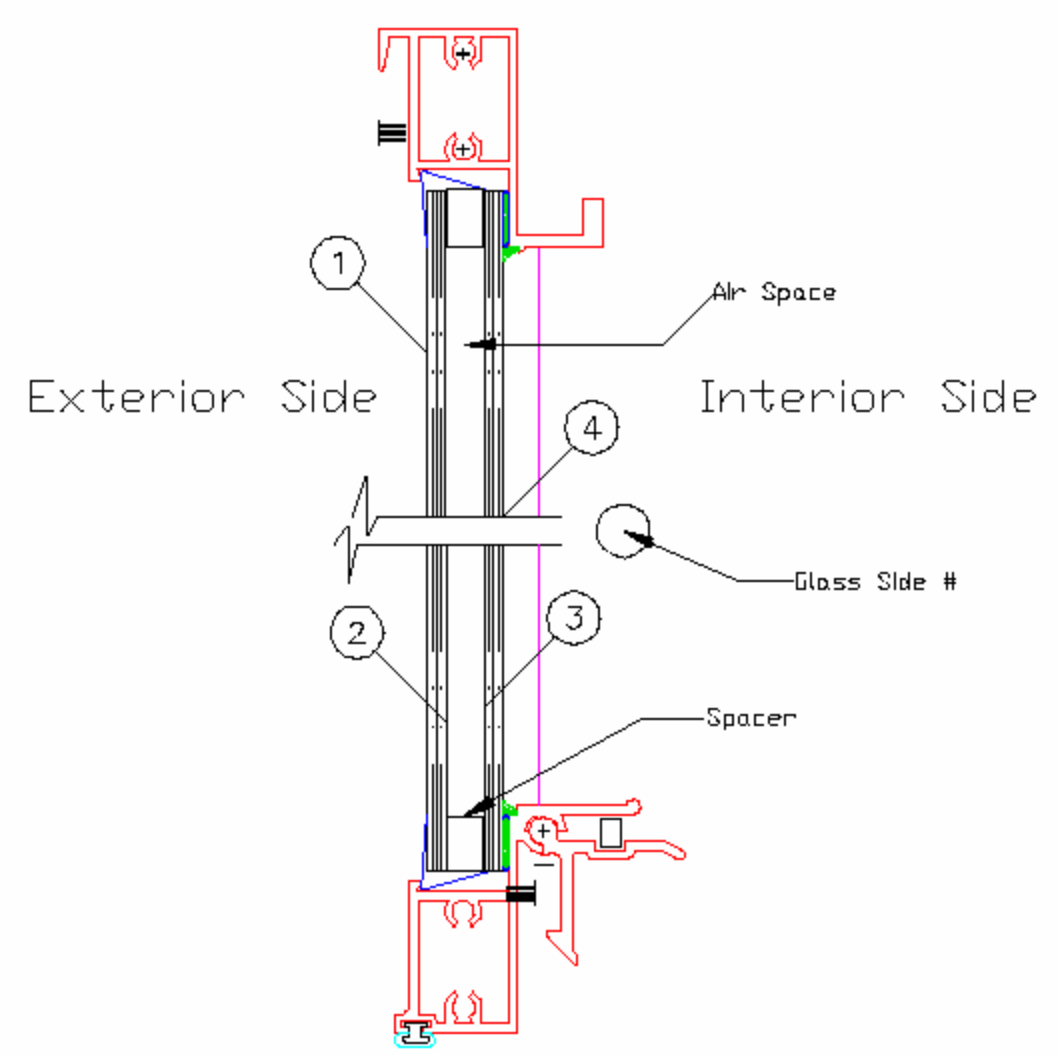
Code	Thickness (in)	MM	UV	Shading Coeff.	Visible Trans. %
#31	1/8	3	17	0.67	30
#14	1/4	6	7	0.53	14

P.P.G Graylite GL-1-C 5077 Fig.5M 297 YWA

6 Reflective glass is produced by firing a metal oxide coating into one surface of a heat absorbing lite of glass during the manufacturing process of the glass. Lawson's use of reflective glass produces a shiny, bronze mirrored finish to the exterior of is products.

7 Laminated glass consists of two or more lites of glass sandwiching an interlayer to form a single unified construction. A wide variety of laminates can be fabricated to meet specific requirements and building codes. Lawson's Hurricane Guard products utilize laminated glass of various thickness and interlayer compositions depending upon the size of the product and its performance goals.

8 Insulated glass. An air space created when two lites of glass are assembled and hermetically sealed, reduces the amount of heat loss to the exterior. A wide variety of glass types and tints can be assembled to achieve energy saving levels while enhancing anesthics..



9 Low E Glass

"Low Emmittance" or often called "Low Emmissivity, is glass that has received a micro thin metal oxide coating deposited on one of its surfaces to enhance its energy efficiency. A reduction in "U" factor produces the

beneficial lowering of heat flow. Lawson's application of Low E is restricted to use on the #2 surface of insulated glass lites to protect the coatings surface from abrasion. Low E is not selected for any anesthetic benefit.

Float Glass Solar Performance Data

Clear & Heat Absorbing Tinted Colors

Tint	Thick. (in)	U-Factor		Shading	Solar Heat Gain	Transmittance %			Reflectance %		
		Winter	Summer	Coefficient	Coefficient	UV	Visible	Solar	Visible	Solar	LSG
CLEAR	0.125	1.11	1.03	1.01	.079 (0.86)[1]	73	0.69 (90)[1]	85	8	8	0.87 (1.04)[2]
	0.188	1.10	1.02	0.99	0.85	67	89	82	8	8	
	0.250	1.09	1.02	0.96	0.83	66	88	79	8	7	
BRONZE	0.125	1.11	1.08	0.83	0.71	38	68	63	6	6	
	0.188	1.10	1.09	0.75	0.64	27	59	53	6	5	
	0.250	1.09	1.09	0.71	0.61	23	54	48	6	5	
GRAY	0.125	1.11	1.09	0.81	0.70	37	62	61	6	6	
	0.188	1.10	1.10	0.71	0.61	28	50	48	5	5	
	0.250	1.09	1.10	0.67	0.58	24	45	43	5	5	
GREEN	0.125	1.11	1.09	0.81	0.70	43	83	61	7	6	
	0.188	1.10	1.09	0.73	0.63	34	79	51	7	6	
	0.250	1.09	1.10	0.70	0.60	30	77	47	7	6	

Note: The lower the Shading Coefficient, the better.