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How to calculate the weight of a glass lite

Safety depends upon knowledge and awareness. You must know the approximate weight of anything you are going to try to lift.

Everybody has some idea of how much weight he or she can safely handle, based on some previous experience, good or bad. It is possible that you base your personal limit on what you once dropped instead of what you know you can safely carry.

Unfortunately, a bad experience with glass can injure you for life. For your own safety and for the safety of those who work around you, you must know the approximate weight of a lite before you attempt to handle it. When handling glass by hand, knowing what a lite weighs helps you determine if one person can safely handle it or if two people are needed. Knowing how to estimate the weight of a lite of glass is a good field skill to develop.

Different types of glass have different weights. Because of this, the best source of information concerning weight is the manufacturer. General figures based on glass thickness can also be used to find the approximate weight of a lite of glass.

The table below shows the approximate weights of glass based on thickness. Remember, these figures are approximate for single lites of glass. Be sure to figure insulating glass units as two single lites to determine their approximate weight.



Thickness (Inches)	Weight (lbs. per sq. ft.)
1/16	.97
3/32	1.20
1/8	1.60
3/16	2.51
7/32	2.82
1/4	3.23
3/8	4.78
1/2	6.37
3/4	9.55
7/8	11/20
1	12.80

To calculate what a lite of glass weighs, you need to know two things: the thickness of the lite and its area. Both can be found with a tape measure. To figure the area (the number of square feet), multiply the length by the width. You may wish to convert each dimension to feet or multiply the dimensions in inches.

If you multiply the dimensions in inches, you must divide the answer by the number of square inches in a square foot (144 inches) to find the total number of square feet.

For example, suppose you have a lite of ¼-inch glass that is 48 inches wide and 62 inches long. To find the number of square feet in the lite, convert the inches to feet: 4 feet by 5.17 feet. Multiply length by width to get the number of square feet: 20.68 square feet. To find the approximate weight, multiply the area by the weight per square foot of ¼-inch glass: 3.23 x 20.68 = 66.8 pounds.

If you prefer to work in inches, multiply 48 inches by 62 inches and then divide by 144 to get the total number of square feet: 2,976 square inches ÷ 144 inches = 20.67 square feet. Then proceed as above.

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