RECYCLE LINCOLN

ESTIMATING MATERIAL WEIGHT

FACT SHEET

ESTIMATE MATERIAL WEIGHT IN A CONTAINER

To estimate the weight of the material in a container, follow these steps:

1. Determine if you will be estimating pounds per gallon or pounds per cubic yard. Generally, carts and totes are measured in gallons, while dumpsters and roll-offs are measured in cubic yards.
2. Estimate the fullness of your container. General increments such as ¼, ½, ¾, and 1 (full) should suffice.
3. Calculate your weight using the conversion factors in the tables below. Simply multiply the size of your container by the fullness of your container, and then multiply that number by the conversion factor associated with your specific material stream.

For example, if you are estimating the weight of a full 2-yard dumpster designated for just corrugated cardboard, your calculation would read: 2 yd^3 x 1 x 106 lbs./yd^3 = 212 lbs. of cardboard.

Remember, it is important to check how full your container is. If your container is only partially-full, you need to adjust your calculation accordingly.

For example, to calculate the weight of single-stream material in a half-full 95-gallon cart, the calculation would read: 95 gallons x ½ x .55 lbs./gallon = 26.13 lbs. of recyclables. If the cart was only a quarter-full, the calculation would read: 95 gallons x ¼ x .55 lbs./gallon = 13.06 lbs. of recyclables.

Below are estimated conversion factors for common waste streams of commercial businesses, including weights for both garbage and recyclables.

Municipal Solid Waste	lbs./gallon	lbs./cubic yard
Commercial Business, uncompacted garbage	0.68	138
Multifamily Housing, uncompacted garbage	0.47	95

Comingled Recycling	lbs./gallon	lbs./cubic yard
Plastic bottles, Aluminum cans, Steel cans, Glass bottles, Corrugated Cardboard and Paper (single-stream)	0.55	111
Plastic bottles, Aluminum cans, Steel cans, Glass bottles, and Paper (*no cardboard)*	1.3	262
Plastic bottles, Aluminum cans, Steel cans, Glass bottles (*no paper or cardboard)*	0.33	67
Plastic and Aluminum containers only	0.16	32

Organic/Compostable Recycling	lbs./gallon	lbs./cubic yard
Commercial Businesses *(little food waste, more paper)*	0.67	135
Commercial Restaurants *(primarily food waste)*	1.96	396

Separated Recycling	lbs./gallon	lbs./cubic yard
Aluminum Cans	0.23	46
Corrugated Cardboard	0.53	106
Glass Containers	1.88	380
Mixed Office Paper	1.6	323
Plastic Containers # 1-7	0.2	40
Steel Cans	0.67	136

Construction & Demolition	lbs./gallon	lbs./cubic yard
Asphalt	3.83	773
Concrete	4.26	860
Ferrous Metal	1.11	225
Gypsum Drywall	2.31	467
Lumber	0.84	169
Rock/Dirt/Sand	4.9	990
Shingles	3.62	731

Miscellaneous. Materials	Volume	Average Weight (lbs.)
Antifreeze	1 gallon	8.42
Branches/Stumps/Trimmings	cubic yard	127
Carpet	cubic yard	147
Carpet Padding	cubic yard	62
Computer Related Electronics	cubic yard	354
Motor Oil	1 gallon	7.4
Oil Filters - Uncrushed	1 drum	175
Scrap Tire - Heavy Duty	1 tire	120
Scrap Tire - Light Duty	1 tire	22.5
Small Electronics	cubic yard	438
Textiles	cubic yard	125-175

Note: 1 cubic yard = 201.974 gallons

If you do not see a conversion factor that fits your business, view the EPA's Volume-to-Weight Conversion Factors sheet[1] for a larger compilation of materials, weights, and conversion factors.

[1]U.S. Environmental Protection Agency. April 2016. "Volume-to-Weight Conversion Factors." Office of Resource Conservation and Recover. 1-7. https://www.epa.gov/sites/production/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf