

# Standard Volume-to-Weight Conversion Factors

## B

Category	Recyclable Materials (u/c = uncompactd/ compactd & baled)	Volume	Estimated Weight (in pounds)
FOOD SCRAPS <sup>A</sup>	Food scraps, solid and liquid fats	55-gal drum	412
GLASS	Bottles <sup>B</sup> :		
	Whole bottles	1 yd <sup>3</sup>	500-700
	Semicrushed	1 yd <sup>3</sup>	1,000-1,800
	Crushed (mechanically)	1 yd <sup>3</sup>	1,800-2,700
	Uncrushed to manually broken	55-gal drum	300
	Refillable Whole Bottles <sup>C</sup> :		
	Refillable beer bottles	1 case = 24 bottles	10-14
	Refillable soft drink bottles	1 case = 24 bottles	12-22
	8 oz glass container	1 case = 24 bottles	12
LEAD-ACID BATTERIES	Car <sup>D</sup>	1 battery	39.4 lb
	Truck <sup>E</sup>	1 battery	53.3 lb lead and plastic
	Motorcycle <sup>E</sup>	1 battery	9.5 lb lead and plastic
METALS	Aluminum Cans <sup>F</sup> :		
	Whole	1 yd <sup>3</sup>	50-75
	Compactd (manually)	1 yd <sup>3</sup>	250-430
	Uncompactd	1 full grocery bag 1 case = 24 cans	1.5 0.9
	Ferrous (tin coated steel cans) <sup>G</sup> :		
	Whole	1 yd <sup>3</sup>	150
	Flattened	1 yd <sup>3</sup>	850
	Whole	1 case = 6 cans	22
	Major Appliances <sup>E</sup> :		
	Air conditioners (room)	1 unit	64.2
	Dishwashers	1 unit	92
	Dryers (clothes)	1 unit	130

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METALS (cont'd)	Freezers	1 unit	193
	Microwave ovens	1 unit	50
	Ranges	1 unit	181.1
	Refrigerators	1 unit	267
	Washers (clothes)	1 unit	177
	Water heaters	1 unit	131
PAPER	Newspaper <sup>F</sup> :		
	Uncompactd	1 yd <sup>3</sup>	360-505
	Compactd/baled	1 yd <sup>3</sup>	720-1,000
	12 in. stack	—	35
	Old Corrugated Containers <sup>F</sup> :		
	Uncompactd	1 yd <sup>3</sup>	50-150 (300) <sup>H</sup>
	Compactd	1 yd <sup>3</sup>	300-500
	Baled	1 yd <sup>3</sup>	700-1,100
	Computer Paper <sup>F</sup> :		
	Uncompactd (stacked)	1 yd <sup>3</sup>	655
	Compactd/baled	1 yd <sup>3</sup>	1,310
	1 case	2,800 sheets	42
	White Ledger <sup>F</sup> :		
	Stacked (u/c)	1 yd <sup>3</sup>	375-465/755-925
	Crumpled (u/c)	1 yd <sup>3</sup>	110-205/325
	Ream of 20# bond; 8-1/2 in. x 11 in.	1 ream = 500 sheets	5
	Ream of 20# bond; 8-1/2 in. x 14 in.	1 ream = 500 sheets	6.4
	White ledger pads	1 case = 72 pads	38
	Tab Cards <sup>F</sup> :		
	Uncompactd	1 yd <sup>3</sup>	605
	Compactd/baled	1 yd <sup>3</sup>	1,215-1,350
	Miscellaneous Paper:		
	Yellow legal pads <sup>F</sup>	1 case = 72 pads	38
	Colored message pads <sup>F</sup>	1 carton = 144 pads	22
	Telephone directories <sup>l</sup>	1 yd <sup>3</sup>	250
	Mixed Ledger/Office Paper <sup>F</sup> :		
	Flat (u/c)	1 yd <sup>3</sup>	380/755
Crumpled (u/c)	1 yd <sup>3</sup>	110-205/610	

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PLASTIC <sup>J</sup>	PET (Soda Bottles):		
	Whole bottles (uncompactd)	1 yd <sup>3</sup>	30-40
	Whole bottles (compactd)	1 yd <sup>3</sup>	515
	Whole bottles (uncompactd)	gaylord	40-53
	Baled	30 in. x 62 in.	500-550
	Granulated	semiload	30,000
	Granulated	gaylord	700-750
	8 bottles (2 L size)	16 L	1
	HDPE (Dairy):		
	Whole (uncompactd)	1 yd <sup>3</sup>	24
	Whole (compactd)	1 yd <sup>3</sup>	270
	Baled	32 in. x 60 in.	400-500
	HDPE (Mixed):		
	Baled	32 in. x 60 in.	900
	Granulated	gaylord	800-1,000
	Granulated	semiload	42,000
	Other Plastic:		
	Uncompactd	1 yd <sup>3</sup>	50
	Compactd/baled	1 yd <sup>3</sup>	400-700
Mixed PET and HDPE (Dairy):			
Whole (uncompactd)	1 yd <sup>3</sup>	32	
Film:			
Baled	semiload	44,000	
Baled	30 in. x 42 in. x 48 in.	1,100	
TEXTILES <sup>I</sup>	Mixed textiles	1 yd <sup>3</sup>	175
TIRES	Car Tires:		
	Whole tire <sup>E</sup>	1 tire	21
	Crumb rubber <sup>K</sup>	1 tire	12
	Truck Tires:		
	Whole tire <sup>E</sup>	1 tire	70
Crumb rubber <sup>K</sup>	1 tire	60	
WOOD	Wood chips <sup>L</sup>	1 yd <sup>3</sup>	625
	Pallets <sup>F</sup>	—	30-100 (40 avg.)

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YARD TRIMMINGS <sup>F</sup>	Grass Clippings:		
	Uncompactd	1 yd <sup>3</sup>	350-450
	Compactd	1 yd <sup>3</sup>	550-1,500
	Leaves:		
	Uncompactd	1 yd <sup>3</sup>	200-250
	Compactd	1 yd <sup>3</sup>	300-450
	Vacuumed	1 yd <sup>3</sup>	350
FURNISHINGS <sup>E</sup>	Foam rubber mattress	1 mattress	55
MUNICIPAL SOLID WASTE <sup>M</sup>	Residential waste (uncompactd at curb)	1 yd <sup>3</sup>	150-300
	Commercial-industrial waste (uncompactd)	1 yd <sup>3</sup>	300-600
	MSW (compactd in truck)	1 yd <sup>3</sup>	500-1,000
	MSW (landfill density)	1 yd <sup>3</sup>	750-1,250

#### Conversion Table Sources:

<sup>A</sup>Information obtained from Washington State.

<sup>B</sup>Draft National Recycling Coalition Measurement Standards and Reporting Guidelines presented to NRC membership. October 31, 1989.

<sup>C</sup>Personal communication with a representative from Allwaste. November 6, 1995.

<sup>D</sup>Battery Council International. 1995. 1994 National Recycling Rate Study.

<sup>E</sup>U.S. EPA. 1995. Methodology for Characterization of Municipal Solid Waste in the United States: 1994 Update. EPA530-R-96-001. Washington, DC.

<sup>F</sup>U.S. EPA. 1993. Business Guide for Reducing Solid Waste. EPA530-K-92-004. Washington, DC.

<sup>G</sup>Personal communication with a representative from the Steel Recycling Institute. November 1, 1995.

<sup>H</sup>Information obtained from New Jersey and New York States.

<sup>I</sup>Information obtained from Massachusetts State.

<sup>J</sup>Personal communication with a representative from the American Plastics Council. November 2, 1995.

<sup>K</sup>Personal communication with a representative from the Scrap Tire Management Council. November 6, 1995.

<sup>L</sup>Information obtained from Northeast Forest Products, Martin Mulch Company, and the Solid Waste Association of North America.

<sup>M</sup>Solid Waste Association of North America, Manager of Landfill Operations Training and Certification Course. January 1989. Revised June 1991 and October 1994.