



City of Seattle

General Measurement Standards and Reporting Guidelines¹ Volume and Weight Conversion Factors for Recyclables

Material	Volume/Count	Weight in Pounds	Source
Aluminum cans	one grocery bag	1.5	NRC
Aluminum cans, flattened	one cubic yard	250	NRC
Aluminum cans, whole	one cubic yard	75	EPA NRMRL
Antifreeze	gallon	8.42	NRC
Asphalt	one cubic yard	2850	Ecology
Battery (auto)	one	35.9	NRC
Books	one cubic yard	500	EPA NRMRL ²
Carpet and carpet padding	one cubic yard	100	CCG ³
Catalytic converter	one	14	NRC
Ceramic tile, loose 6"x6"	one cubic yard	1200	Tellus
Composition shingles	one cubic yard	500	CCG
Computer (15" monitor)	one	30	Ecology
Computer (17" monitor)	one	45	Ecology
Computer (21" monitor)	one	60	Ecology
Computer (CPU)	one	30	Ecology
Concrete	one cubic yard	2850	Ecology ⁴
Corrugated cardboard	one cubic yard	400	EPA NRMRL
Corrugated cardboard, baled	one cubic yard	1,000-1,200	NRC ⁵
Ferrous cans, flattened	one cubic yard	850	NRC
Ferrous cans, whole	one cubic yard	150	NRC
Fiberglass insulation, loose	one cubic yard	15	Tellus
Film, baled	30" x 42" x 48"	1,100	NRC
Film, baled	semi-load	44,000	NRC
Fines, loose	one cubic yard	2700	Tellus
Food waste	one cubic yard	800	EPA NRMRL
Food waste, solid and liquid fats	55-gallon drum	412	NRC
Glass, crushed (mechanically)	one cubic yard	800-2,700	NRC
Glass, semi crushed	one cubic yard	1,000-1,800	NRC
Glass, uncrushed to manually broken	55-gallon drum	125-500	NRC
Glass, whole bottles	one cubic yard	600-1,000	NRC
Glass, whole bottles	one grocery bag	16	NRC
Grass clippings	one cubic yard	400-1,500	NRC
Gravel or rock, loose	one cubic yard	2565	Tellus
Gypsum (dry)	one cubic yard	500-670	NRC
HDPE (dairy only), baled	32" X 60"	400-500	NRC
HDPE (dairy only), whole, loose	one cubic yard	24	NRC
HDPE (mixed), baled	32" x 60"	900	NRC
HDPE (mixed), granulated	gaylord	800-1,000	NRC
HDPE (mixed), granulated	semi-load	42,000	NRC

¹ Disclaimer: This table is for general guidance only. Not for contract payment.

² Environmental Protection Agency National Risk Management Research Laboratory (EPA NRMRL).

³ Developed by Cascadia Consulting Group (CCG) for a waste composition study in San Diego, California in 2000.

⁴ Washington Department of Ecology (Ecology), industry surveys.

⁵ National Recycling Coalition (NRC).

Material	Volume/Count	Weight in Pounds	Source
Magazines	one cubic yard	500	EPA NRMRL
Manure	one cubic yard	1628	FEECO ⁶
Mattresses	each piece	60	Van. BC
Mixed Paper	one cubic yard	500	EPA NRMRL
Mixed PET & dairy, whole, loose	one cubic yard	average 32	NRC
Mixed PET, dairy & other rigid, whole, loose	one cubic yard	average 38	NRC
Mixed Plastic	one cubic foot	50	EPA NRMRL
Mixed rigid plastic & film, densified by mixed mold tech.	one cubic foot	average 60	NRC
Mixed rigid plastic, no film or dairy, whole, loose	one cubic yard	average 49	NRC
Mixed rigid plastic, no film, granulated	gaylord	500-1000	NRC
Newsprint	12" stack	35	NRC
Newsprint, compacted	one cubic yard	720-1,000	NRC
Newsprint, loose	one cubic yard	500	EPA NRMRL
Office Paper	one cubic yard	500	EPA NRMRL
Oil filter drum	one	450	Ecology
Pallets	one cubic yard	185	EPA NRMRL
Particle board, loose pieces	one cubic yard	425	Tellus
PET, soda bottles, baled	30" x 62"	500	NRC
PET, soda bottles, granulated	gaylord	700-750	NRC
PET, soda bottles, granulated	semi-load	30,000	NRC
PET, soda bottles, whole, loose	one cubic yard	40	EPA NRMRL
PET, soda bottles, whole, loose	gaylord ⁷	40-53	NRC
Phone Books	one cubic yard	500	EPA NRMRL
Plywood sheet, pieces	one cubic yard	775	Tellus
Refillable beer bottles	case	11.4	NRC
Roofing shakes, shingles (wood)	one cubic yard	435	Tellus
Sawdust	one cubic yard	375	Tellus Inst. ⁸
Soil, dry	one cubic yard	2025	Tellus
Stumps & logs	one cubic yard	1080	CCG
Tire – passenger car	one	20	NRC
Tire – semi	one	105	NRC
Tire - truck, light	one	35	NRC
Used motor oil	one gallon	7.4	NRC
White goods/appliances	one	150	Ecology
Wood chips	one cubic yard	500	NRC
Yard trimmings, branches	one cubic yard	350	EPA NRMRL
Yard trimmings, grass	one cubic yard	350	EPA NRMRL
Yard trimmings, leaves	one cubic yard	350	EPA NRMRL

⁶ "FEECO International Complete Systems and Equipment Handbook," 9th printing.

⁷ Gaylord size most commonly used, 40" X 48" X 36."

⁸ Tellus is a non-profit research institute in Boston with extensive background in waste materials management.