



City of Seattle

General Measurement Standards and Reporting Guidelines¹

Volume and Weight Conversion Factors for Recyclables

Updated December 2022

| 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 |

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 |
|---|----------------------|-------------------------|---------------------------|
| HDPE (mixed), granulated | Gaylord | 800-1,000 | NRC |
| HDPE (mixed), granulated | semi-load | 42,000 | NRC |
| 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.