Ingredient Density Sources and Methodology

GramstoCup.co source record | Reviewed August 23, 2026 | Author: William Leo

Purpose

This document records the working grams-per-US-cup values used by the GramstoCup.co calculators, charts and ingredient pages. Each value is tied to a named ingredient state so that the same standard is used across every conversion.

Conversion method

One US customary cup is approximately 236.588 milliliters. Ingredient weight changes with density, packing, moisture and measuring technique, so there is no universal grams-to-cups factor.

Cups = grams / grams per cup

Grams = cups x grams per cup

Ingredient reference table

Ingredient	g / cup	Ingredient state	Source record
All-Purpose Flour	**120**	unsifted, fluffed, spooned and leveled	King Arthur Baking
Granulated Sugar	**198**	white granulated sugar, leveled	King Arthur Baking
Brown Sugar	**213**	light or dark brown sugar, packed	King Arthur Baking
Butter	**227**	solid butter	King Arthur Baking
Powdered Sugar	**113**	confectioners' sugar, unsifted and not packed	King Arthur Baking
Unsweetened Cocoa Powder	**84**	unsweetened cocoa powder, spooned and leveled	King Arthur Baking
Honey	**340**	pourable honey at room temperature	King Arthur Baking
Fresh Milk	**227**	fresh dairy milk	King Arthur Baking
Old-Fashioned Rolled Oats	**89**	old-fashioned or quick-cooking oats, uncooked	King Arthur Baking
Vegetable Oil	**198**	liquid vegetable oil	King Arthur Baking
Long-Grain White Rice	**185**	uncooked long-grain white rice	USDA FoodData Central
Water	**237**	water in one US customary cup	NIST
Chocolate Chips	**170**	standard chocolate chips	King Arthur Baking
Whole Almonds	**142**	whole unblanched almonds	King Arthur Baking

Source references

1. King Arthur Baking Ingredient Weight Chart. Used as the main baking ingredient weight reference.

2. National Institute of Standards and Technology US customary volume reference. Used for the approximately 236.588 milliliter US customary cup.

3. USDA FoodData Central. Used as the supporting reference for uncooked long-grain white rice.

Limitations

These values are practical kitchen references, not universal laboratory constants. Brand, ingredient form, moisture, temperature, sifting, packing and measuring technique can change the weight placed in a cup. When a recipe publisher provides its own gram weight, use that recipe-specific value.

Editorial note

The online dataset, conversion tools and downloadable files are generated from the same central ingredient records. Corrections can be reported to gramstocupteam@gmail.com.