

#66: Solstice Stout (Export Stout)

CHRIS SWINGLEY (15-DEC-2006 – 16-DEC-2006)

Classic foreign export stout, brewed near to the Winter Solstice.

Recipe (for 5 gallons final volume)

12 pounds	(72%)	Crisp Maris Otter Pale Malt
2 pounds	(12%)	Briess Flaked Barley
1 pound	(6%)	Briess Carmel Malt (80L)
1 pound	(6%)	Briess Roast Barley (300L)
8 ounces	(3%)	Briess Black Barley Malt
4 ounces	(1%)	Chocolate Malt
½ ounce		Magnum whole hops, 11.4% AA (first wort hop)
1½ ounces		Magnum whole hops, 11.4% AA (65 minutes)
2 ounces		Willamette whole hops, 4.4% AA (15 minutes)

Wyeast 1056 American Ale, pitched at 64°F

Starter: 3 quart starter (vial → 3 quarts), continuously stirred, cooled, decanted, warmed

Aeration: Drill aerator for two minutes after pitching

Water

- Fairbanks city water
- 41 quarts water treated with:
 - 4 ml Potassium Metabisulfide solution (50ppm). Removes chlorine ion and chloramine, reduces oxidation
- 25 quarts mash water treated with:
 - ½ teaspoon Gypsum. Adds 22 ppm Calcium ion, 54 ppm Sulfite (shooting for Dublin water)
 - 1 teaspoon Baking soda. Adds 156 ppm carbonate ion, 61 ppm Sodium ion

Mash

- 25 quarts water @ 163°F, grist ratio of 1½ quarts:pound @ 153°F (Held 90 minutes). 154°F - 145°F

Sparge

- 9½ quarts water @ 210°F, drain
- 6½ quarts water @ 168°F, drain

Boil

- Boiled 8.0 gallons for 90 minutes to yield 5½ gallons wort

Fermentation

- Primary: bucket, 7 days, 65°F
- Secondary: keg, 7 days, 65°F

Packaging

- Kegged at 8 psi, 50°F (1.8 volumes CO₂)
- Conditioned for 4 weeks
- Ready to drink on 27-Jan-2007

Properties

Starting Gravity: 1.062	Final Gravity: 1.018
Original Extract: 15.2°Plato	Apparent Extract: 4.6°Plato
	Real Extract: 6.6°Plato
Alcohol: 5.8% by volume	Alcohol: 4.5% by weight
Apparent Attenuation: 69.9%	Mash Efficiency: 66%
Bitterness: 65 IBU	Color: 37°SRM
BU:SG: 1.05	BV: 2.01