

# BS026 Oatmeal Stout

Oatmeal Stout (16 B)

**Type:** All Grain  
**Batch Size:** 46.00 l  
**Boil Size:** 56.21 l  
**Boil Time:** 90 min  
**End of Boil Vol:** 50.96 l  
**Final Bottling Vol:** 45.00 l  
**Fermentation:** Ale, Two Stage

**Date:** 20 Mar 2016  
**Brewer:** Charles Tucker  
**Asst Brewer:**  
**Equipment:** My Braumeister 50L  
**Efficiency:** 74.00 %  
**Est Mash Efficiency:** 79.3 %  
**Taste Rating:** 30.0



## Taste Notes:

Prepare for Brewing

- Clean and Prepare Brewing Equipment
- Total Water Needed: 66.82 l
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## Water Prep

Amt	Name	Type	#	%/IBU
125.08 mg	Potassium metabisulphite (Mash 90.0 mins)	Water Agent	1	-

Mash or Steep Grains

## Mash Ingredients

Amt	Name	Type	#	%/IBU
5.00 kg	Pale Ale Malt (Crisp) (5.7 EBC)	Grain	2	46.3 %
2.50 kg	Pale Malt, Maris Otter (Warminster Maltings) (4.5 EBC)	Grain	3	23.1 %
1.20 kg	Oats, Malted (The Malt Miller) (3.0 EBC)	Grain	4	11.1 %
0.50 kg	Pale Chocolate Malt (525.0 EBC)	Grain	5	4.6 %
0.25 kg	Dingman's De-husked Roasted Barley (1200.0 EBC)	Grain	6	2.3 %
0.25 kg	Roasted Barley (Malt Miller) (1200.0 EBC)	Grain	7	2.3 %
0.20 kg	Carapils (Weyermann) (4.0 EBC)	Grain	8	1.9 %
0.20 kg	Crystal Malt Medium (The Malt Miller) (150.0 EBC)	Grain	9	1.9 %

## Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 41.22 l of water at 73.4 C	66.0 C	90 min
Mash Out	Add 0.01 l of water and heat to 76.0 C over 10 min	76.0 C	15 min

- Fly sparge with 25.59 l water at 76.0 C
- Add water to achieve boil volume of 56.21 l
- Estimated pre-boil gravity is 1.047 SG

## Boil Ingredients

Amt	Name	Type	#	%/IBU
80.00 g	Challenger (The Malt Miller) [6.60 %] - Boil 60.0 min	Hop	10	25.5 IBUs
0.68 kg	Tate & Lyle's Golden Syrup [Boil for 10 min](100.0 EBC)	Sugar	11	6.3 %
0.02 kg	Molasses Blackstrap (Meridian) [Boil for 10 min](600.0 EBC)	Sugar	12	0.2 %

- Estimated Post Boil Vol: 50.96 l and Est Post Boil Gravity: 1.054 SG

Cool and Transfer Wort

- Cool wort to fermentation temperature
- Transfer wort to fermenter
- Add water if needed to achieve final volume of 46.00 l

Pitch Yeast and Measure Gravity and Volume

## Fermentation Ingredients

Amt	Name	Type	#	%/IBU
3.0 pkg	SafAle English Ale SO4 (DCL/Fermentis #S-04) [23.66 ml]	Yeast	13	-

- Measure Actual Original Gravity \_\_\_\_\_ (Target: 1.054 SG)
- Measure Actual Batch Volume \_\_\_\_\_ (Target: 46.00 l)
- Add water if needed to achieve final volume of 46.00 l

Fermentation

- 20 Mar 2016 - Primary Fermentation (4.00 days at 18.0 C ending at 18.0 C)

24 Mar 2016 - Secondary Fermentation (10.00 days at 18.0 C ending at 18.0 C)

### Secondary Ingredients

Amt	Name	Type	#	%/IBU
500.00 g	Cacao Nibs (Holland & Barrett) (Secondary 5.0 days)	Flavor	14	-

### Dry Hop and Bottle/Keg

- Measure Final Gravity: \_\_\_\_\_ (Estimate: 1.011 SG)
- Date Bottled/Kegged: 03 Apr 2016 - Carbonation: Bottle with 264.69 g Corn Sugar
- Age beer for 30.00 days at 18.0 C
- 03 May 2016 - Drink and enjoy!

### Notes

Target Water Profile ppm

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Calcium(Ca): 135  
 Magnesium(Mg): 5  
 Sodium(Na): 25  
 Sulfate(SO4): 51  
 Chloride(Cl): 204  
 biCarbonate(HCO3): 85

SO4 to Cl ratio was 1:3.5.

All sparging minerals added to mash.

Sparge target alkalinity 25. Mash alkalinity target 100.

40L of water stored for sparge. 178ml HCl added and alkalinity was 23. pH 5.76.

42L of mash water in Braumeister. 121ml HCl added and alkalinity was 97. pH was 6.28. HCL was supposed to be 1M strength, but may have been weaker since initial acid additions were 138ml for sparge and 81ml for mash liquor.

Mash was very stiff when all grains stirred in. Try increasing mash liquor by 5 - 10L and reducing sparge amount. Or work on basis of 1L sparge per 1kg of grain and then the rest as mash water. Mash pH after 25 mins was 5.47.

Preboil volume was 54L and pH was 5.25.

46L collected in fermenter. pH was 5.33.

90 second burst of O2 with oxygen stone/wand before pitching yeast.

Cacao nibs - mine were raw so I roasted them at 120c for 25 minutes.