

## Sub - 4.6%

### Irish Stout

Author: Alex George

Type: All Grain

IBU : 34 (Tinseth)  
 BU/GU : 0.73  
 Color : 47 SRM  
 Carbonation : 2 CO2-vol

Pre-Boil Gravity : 1.043  
 Original Gravity : 1.047  
 Final Gravity : 1.012

### Fermentables (9 lb 6.1 oz)

5 lb 7 oz - Pale Ale Malt 2.9 °L (58%)  
 1 lb 15 oz - Barley, Flaked 1.8 °L (20.7%)  
 1 lb 3 oz - Roasted Barley 295.9 °L (12.7%)  
 7 oz - Bittersweet Chocolate 385 °L (4.7%)  
 2 oz - Black (Patent) Malt 369.7 °L (1.3%)  
 2 oz - Carapils (Briess) 1.7 °L (1.3%)  
 2 oz - Midnight Wheat Malt 550 °L (1.3%)

### Hops (2 oz)

60 min - 2 oz - East Kent Goldings (EKG) - 4....

### Miscellaneous

Mash - 1.27 g - Baking Soda  
 Mash - 0.708 g - Calcium Chloride  
 Mash - 4.976 g - Chalk  
 Mash - 1.832 g - Epsom Salt (MgSO4)  
 Mash - 0.604 g - Gypsum (Calcium Sulfate)  
 15 min - Boil - 1 items - Whirlfloc Tablet

### Yeast

1 pkg - White Labs Irish Ale Yeast WLP004

### Starter

Step 1: 1 L (3.49 oz DME / 4.23 oz LME)  
 238 billion yeast cells  
 13 million cells / ml

### Brewer's Edge Mash + Boil

Batch Size : 5 gal  
 Boil Size : 5.97 gal  
 Post-Boil Vol : 5.47 gal

Mash Water : 3.79 gal  
 Sparge Water : 2.84 gal  
 Boil Time : 60 min  
 Total Water : 6.63 gal

Brewhouse Efficiency: 72%  
 Mash Efficiency: 75.6%

### Mash Profile

Starch Conversion (Beta-Gluc)  
 124.9 °F - Strike Temp  
 119 °F - 15 min - Beta-Glucanase Rest  
 150 °F - 40 min - Saccharification Rest

### Fermentation Profile

Ale Requiring Filtration  
 64 °F - 10 days - Primary Fermentation  
 40 °F (1 day ramp) - 1 days - Cold Crash  
 40 °F - 1 days - Pass through Filter  
 40 °F (1 day ramp) - 4 days - Cold Conditioning

### Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

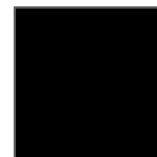
Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:



47 SRM

### Recipe Notes

This recipe was heavily piloted until the final beer was settled on. Really like it.

Brewed for my wedding. Did not Mill the grain and changed grain Bill slightly to match inventory at Homebrew store. Recipe came out fantastic will definitely Brew again.

Very toasty and chocolatey while being very drinkable. A jet black and bright appearance with a brown head.

Won 2nd place in Irish Beer in Shamrock Open 2022!