

**88 EBC** 

## Courage - Russian Imperial Stout (clone) - 11.2%

Imperial Stout

Author: Rotation@homebrewinguk.com

Type: All Grain

IBU : 93 (Tinseth) BU/GU : 0.94 Colour : 88 EBC : 2.4 CO2-vol Carbonation

Pre-Boil Gravity : 1.060 Original Gravity : 1.097 Total Gravity : 1.099 Final Gravity : 1.014

Fermentables (2.22 kg)

1.667 kg - Extra Pale Malt 3.4 EBC (75.1%) 277 g - 10 min - Boil - Brown Sugar, Dark 98.... 139 g - Crystal Malt 150 EBC (6.3%) ^ The Malt Miller (UK) MAL-01-008

69 g - Black Malt 1340 EBC (3.1%) ^ The Malt Miller (UK) MAL-02-008 69 g - Chocolate Malt 950 EBC (3.1%) ^ The Malt Miller (UK) MAL-02-004

34 g - Bottling - Brown Sugar, Light 15.8 EBC

Hops (51.1 g)

60 min - 51.1 g - Fuggles - 4.5% (93 IBU) ^ The Malt Miller (UK) HOP-04-002

Miscellaneous

Mash - 0.7 g - Baking Soda (NaHCO3)

^ Lot # 41190621/3

^ Brouwstore (NL) 003.106.2

Mash - 2.44 g - Calcium Chloride (CaCl2) 33 %...

^ Lot # 115038

^ Brouwstore (NL) 055.035.0

Mash - 0.68 g - Canning Salt (NaCl)

^ Albert Heijn (NL)

Mash - 0.99 g - Epsom Salt (MgSO4)

^ Lot # /2119000091

^ Brouwstore (NL) 055.027.7 Mash - 0.99 g - Gypsum (CaSO4)

^ The Malt Miller (UK) CHE-03-004

Mash - 0.6 ml - Lactic Acid 80% 80%

^ Lot # 20200213

^ Brouwstore (NL) 003.002.3

01 Brouwpunt 5L (60min) (rev 4)

Batch Size : 5.6 L Boil Size : 7.76 L Post-Boil Vol : 5.96 L

Mash Water : 5.83 L : 3.92 L Sparge Water Boil Time : 60 min Total Water : 9.75 L

Brewhouse Efficiency: 71.8% Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min) 65.3 °C - Strike Temp 60 °C - 5 min - Dough in 66 °C - 90 min - Temperature

70 °C - 5 min - Sparce

Fermentation Profile

01 Ale + DR + Conditioning 18 °C - 10 days - Primary

21 °C - 4 days - Diacetyl rest 18  $^{\circ}\text{C}$  - 180 days - Conditioning

18 °C - 14 days - Carbonation 18 °C - 540 days - Maturation

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl... Ca 58 Mg 12 Na 50 Cl 100 SO 100 HCO 68

SO/Cl ratio: 1 Mash pH: 5.4 Sparge pH: 6

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:

## Recipe Notes

Target: OG = 1.103.