

62 EBC

## The Dark Crystal - 5.8%

American Stout
Author: The Thirsty Otter

Type: All Grain

IBU : 33 (Tinseth)
BU/GU : 0.59
Colour : 62 EBC
Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.041
Original Gravity : 1.054
Total Gravity : 1.056
Final Gravity : 1.012

Fermentables (1.38 kg)

1 kg - Maris Otter Pale Ale Malt 5.9 EBC (72.5%)

^ Brouwstore (NL)

200 g - Pale Chocolate Malt 525 EBC (14.5%)

^ The Malt Miller (UK) MAL-02-011 150 g - Oat Malt 4 EBC (10.9%) ^ The Malt Miller (UK) MAL-00-003 30 g - Roasted Barley 1300 EBC (2.2%) ^ The Malt Miller (UK) MAL-02-007

30 g - Bottling - Sugar, Table (Sucrose) 2 EBC

^ Albert Heijn (NL)

Hops (45 g)

40 min - 15 g - Crystal (T90) - 3.1% (19 IBU)

^ The Malt Miller (GB) HOP-05-044

15 min - 15 g - Crystal (T90) - 3.1% (12 IBU)

^ The Malt Miller (GB) HOP-05-044

Hop Stand

15 min hopstand @ 80 °C

15 min - 15 g - Crystal (T90) - 3.1% (2 IBU)

^ The Malt Miller (GB) HOP-05-044

Miscellaneous

Mash - 0.65 g - Baking Soda (NaHCO3)

^ Lot # 41190621/3

^ Brouwstore (NL) 003.106.2

Mash - 2.28 g - Calcium Chloride (CaCl2) 33 %...

^ Lot # 115038

^ Brouwstore (NL) 055.035.0

Mash - 0.65 g - Canning Salt (NaCl)

^ Albert Heijn (NL)

Mash - 0.94 g - Epsom Salt (MgSO4)

^ Lot # /2119000091

^ Brouwstore (NL) 055.027.7

Mash - 0.93 g - Gypsum (CaSO4) ^ The Malt Miller (UK) CHE-03-004

Mash - 0.1 ml - Lactic Acid 80% 80%

^ Lot # 20200213

^ Brouwstore (NL) 003.002.3

Mash - 4.14 l - NL Spa Reine Flat Mineral Water

^ AH (NL)

Sparge - 5.06 l - NL Spa Reine Flat Mineral W...

^ AH (NL)

60 min - Boil - 0.15 g - Lipohop K

^ The Malt Miller (UK) CH-03-013

10 min - Boil - 1 g - Irish Moss

^ Brouwstore (NL) 125.249.1

10 min - Boil - 0.05 g - Lallemand Servomyces
^ Lot # 154001112904ABV

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

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

Mash Water : 4.14 L Sparge Water : 5.06 L Boil Time : 60 min

Total Water : 9.2 L

Brewhouse Efficiency: 71.8% Mash Efficiency: 73.3%

Mash Profile

04 High fermentability (60 min)

71 °C - Strike Temp

65 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning

18  $^{\circ}\text{C}$  - 10 days - Primary

21 °C - 4 days - Diacetyl rest

18 °C - 45 days - Conditioning

Water Profile

NL Spa Reine Flat Mineral Water (www.ah.nl) (...

Ca 58 Mg 12 Na 50 Cl 100 SO 100 HCO 67

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: