

## Similar to Black Sheep - 4.9%

### Strong Bitter

Author: GHW@homebrewinguk.com

Type: All Grain

IBU : 31 (Tinseth)  
 BU/GU : 0.62  
 Colour : 23 EBC  
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.037  
 Original Gravity : 1.048  
 Total Gravity : 1.050  
 Final Gravity : 1.013

### Fermentables (1.26 kg)

1.024 kg - Pale Malt 2-Row 5.9 EBC (81.5%)  
 106 g - Wheat Malt 3.9 EBC (8.4%)  
 70 g - Biscuit Malt 45.5 EBC (5.6%)  
 35 g - Special B Malt 355 EBC (2.8%)  
 21 g - Medium Crystal 240 265 EBC (1.7%)  
 17 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
 ^ Albert Heijn (NL)

### Hops (18.2 g)

60 min - 4.2 g - Target (T90) - 7.5% (16 IBU)  
 ^ The Malt Miller (UK) HOP-04-003  
 10 min - 3.5 g - Challenger (T90) - 6.1% (4 IBU)  
 ^ The Malt Miller (UK) HOP-04-000  
 10 min - 3.5 g - East Kent Goldings (T90) - 6...  
 ^ The Malt Miller (UK) HOP-04-001  
 10 min - 3.5 g - First Gold (T90) - 7.5% (6 IBU)  
 ^ The Malt Miller (UK) HOP-04-006

### Hop Stand

10 min hopstand @ 80 °C  
 10 min - 3.5 g - Challenger (T90) - 6.1% (1 IBU)

### Miscellaneous

Mash - 0.64 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 1.18 g - Calcium Chloride (CaCl2) 33 %...  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.64 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 1.2 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 2.36 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 0.5 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

### Yeast

0.4 pkg - Mangrove Jack's Empire Ale Yeast M15  
 ^ Brouwstore (NL)

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

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

Mash Water : 3.77 L  
 Sparge Water : 5.32 L  
 Boil Time : 60 min  
 Total Water : 9.09 L



23 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

01 One Step Mash (60 min)  
 72.1 °C - Strike Temp  
 66 °C - 60 min - Temperature

### Fermentation Profile

01 Ale + DR + Conditioning  
 18 °C - 10 days - Primary  
 21 °C - 4 days - Diacetyl rest  
 18 °C - 14 days - Carbonation  
 18 °C - 28 days - Conditioning

### Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
 Ca 81 Mg 15 Na 50 Cl 75 SO 200  
 SO/Cl ratio: 2.7  
 Mash pH: 5.3  
 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:

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## Recipe Notes

Target: ABV = 5.1 %, IBU ~ 40.