

## Banks's Amber Bitter Oslo (tweaked) - 4.1%

### Ordinary Bitter

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Type: All Grain

IBU : 31 (Tinseth)  
 BU/GU : 0.86  
 Colour : 19 EBC  
 Carbonation : 1.9 CO2-vol

Pre-Boil Gravity : 1.031  
 Original Gravity : 1.036  
 Final Gravity : 1.005

### Fermentables (883 g)

821 g - Pale Ale Malt 6 EBC (93%)  
 ^ The Malt Miller (UK) MAL-00-010  
 51 g - Flaked Oats Including Husk 2 EBC (5.8%)  
 ^ The Malt Miller (UK) MAL-03-007  
 11 g - Black Malt 1340 EBC (1.3%)  
 ^ The Malt Miller (UK) MAL-02-008

### Hops (20.7 g)

30 min - 5 g - East Kent Goldings (T90) - 5%...  
 ^ The Malt Miller (UK) HOP-04-001  
 30 min - 5 g - Fuggles - 4.5% (9 IBU)  
 ^ The Malt Miller (UK) HOP-04-002  
 12 min - 10.7 g - East Kent Goldings (T90) - ...  
 ^ The Malt Miller (UK) HOP-04-001

### Miscellaneous

Mash - 0.85 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 - 0.85 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 1.04 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 2.04 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 0.2 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

### Yeast

0.3 pkg - Bootleg Biology OSLO kveik

### 01 Brouwpunt 5L (30min) (rev 4)

Batch Size : 5.6 L  
 Boil Size : 6.86 L  
 Post-Boil Vol : 5.96 L

Mash Water : 2.65 L  
 Sparge Water : 5.18 L  
 Boil Time : 30 min  
 Total Water : 7.83 L



19 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

01 One Step Mash (30 min)  
 73.3 °C - Strike Temp  
 67 °C - 30 min - Temperature

### Fermentation Profile

01 Ale + DR + Conditioning  
 30 °C - 10 days - Primary  
 32 °C - 4 days - Diacetyl rest  
 30 °C - 45 days - Conditioning

### Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
 Ca 100 Mg 15 Na 75 Cl 132 SO 201

SO/Cl ratio: 1.5  
 Mash pH: 5.45  
 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: ABV = 3.92 %, IBU = 33.34, EBC = 14.37, OG = 1.036, FG = 1.006, Mash pH = 5.46.