

## Strong Scottish Ale (20231216) - 5.9%

### Scottish Export

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Type: All Grain

IBU : 38 (Tinseth)  
 BU/GU : 0.63  
 Colour : 51 EBC  
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.047  
 Original Gravity : 1.061  
 Final Gravity : 1.016

### Fermentables (1.59 kg)

1.22 kg - Mash - Pale Ale Malt 5.5 EBC (76.9%)  
 ^ The Malt Miller (UK) MAL-00-042  
 122 g - Mash - Rye Malt 25 EBC (7.7%)  
 ^ The Malt Miller (UK) MAL-00-037  
 61 g - Mash - Carapils 4 EBC (3.8%)  
 ^ Brouwmaatje (NL) BM-BL.051.307.7/1  
 61 g - Mash - Torrified Wheat 3.9 EBC (3.8%)  
 ^ The Malt Miller (UK) MAL-03-006  
 49 g - Mash - Extra Dark Crystal Malt 400 EBC...  
 ^ The Malt Miller (UK) MAL-01-004  
 37 g - 30 min - Steep - Chocolate Malt 950 EB...  
 ^ The Malt Miller (UK) MAL-02-004  
 37 g - 30 min - Steep - Roasted Barley 1300 E...  
 ^ The Malt Miller (UK) MAL-02-007

### Hops (11.2 g)

60 min - 11.2 g - First Gold (T90) - 7.5% (38...  
 ^ The Malt Miller (UK) HOP-04-006

### Miscellaneous

Mash - 0.66 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 1.21 g - Calcium Chloride (CaCl2) 33 %...  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.65 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 1.22 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 1.57 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 0.4 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

### Yeast

0.2 pkg - Crossmyloof Beòir

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

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

Mash Water : 4.36 L  
 Sparge Water : 4.91 L  
 Boil Time : 60 min  
 Total Water : 9.27 L



51 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

01 One Step Mash (90 min)  
 68.7 °C - Strike Temp  
 63 °C - 90 min - Temperature  
 80 °C - 10 min - Mash out

### 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 60 Mg 15 Na 50 Cl 75 SO 150 HCO 68

SO/Cl ratio: 2

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: