

# Berliner Braun Bitterbier - 7.1%

## Historical Beer

Author: Based on Krennmair's Historic German...

Type: All Grain

IBU : 82 (Tinseth)  
 BU/GU : 1.25  
 Colour : 49 EBC  
 Carbonation : 2 CO2-vol

Pre-Boil Gravity : 1.045  
 Original Gravity : 1.066  
 Final Gravity : 1.012

## Fermentables (1.66 kg)

1.625 kg - Munich Dark 30.5 EBC (98.1%)  
 32 g - Black Malt 985 EBC (1.9%)

## Hops (38.5 g)

First Wort 90 - 21 g - Liberty - 5% (57 IBU)  
 First Wort 90 - 17.5 g - spalt - 2.6% (25 IBU)

## Miscellaneous

Mash - 0.52 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 0.44 g - Calcium Chloride (CaCl2) 33 %...  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.43 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 0.87 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 0.88 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 15 min - Boil - 1.988 ml - irish moss

## Yeast

0.6 pkg - Fermentis / Safale Safale - German...

## 01 Brouwpoint 5L (90min) (rev 4)

Batch Size : 5.6 L  
 Boil Size : 8.66 L  
 Post-Boil Vol : 5.96 L

Mash Water : 4.97 L  
 Sparge Water : 5.4 L  
 Boil Time : 90 min  
 Total Water : 10.37 L



49 EBC

Brewhouse Efficiency: 71.8%

Mash Efficiency: 73.3%

## Mash Profile

Mash Steps  
 66.6 °C - Strike Temp  
 61.1 °C - 30 min - strike water 162  
 76.1 °C - 120 min - strike water boiling  
 79.4 °C - 10 min - Infusion

## Fermentation Profile

01 Ale + DR + Conditioning  
 15 °C - 10 days - Primary  
 19 °C - 4 days - Diacetyl rest  
 15 °C - 14 days - Carbonation  
 15 °C - 28 days - Conditioning

## Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
 Ca 30 Mg 10 Na 33 Cl 39 SO 84 HCO 53

SO/Cl ratio: 2.2

Mash pH: 5.26

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: