

Mean Brews - Munich Dunkel - 5.5%

Munich Dunkel
Author: Mean Brews

Type: All Grain

IBU : 24 (Tinseth)
BU/GU : 0.43
Colour : 33 EBC
Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.038
Original Gravity : 1.055
Final Gravity : 1.013

Fermentables (1.35 kg)
568 g - Munich I 15 EBC (42%)
568 g - Munich II 16.7 EBC (42%)
188 g - Pilsner 3.3 EBC (13.9%)
27 g - Carafa Special III 1400 EBC (2%)

Hops (15.6 g)
60 min - 10.1 g - Hallertauer Mittelfrueh - 4...
10 min - 5.5 g - Hallertauer Mittelfrueh - 4%...

Miscellaneous
Mash - 1.33 g - Calcium Chloride (CaCl2) 33 %...
^ Lot # 115038
^ Brouwstore (NL) 055.035.0
Mash - 0.44 g - Canning Salt (NaCl)
^ Albert Heijn (NL)
Mash - 0.1 g - Epsom Salt (MgSO4)
^ Lot # /2119000091
^ Brouwstore (NL) 055.027.7
Mash - 0.4 g - Gypsum (CaSO4)
^ The Malt Miller (UK) CHE-03-004
Mash - 0.1 ml - Phosphoric Acid 75 % 85%
^ Lot # /L20003612
^ Brouwstore (NL) 055.054.1

Yeast
0.9 pkg - White Labs German Bock Lager WLP833

01 Brouwpunt 5L (90min) (rev 4)
Batch Size : 5.6 L
Boil Size : 8.66 L
Post-Boil Vol : 5.96 L

Mash Water : 4.05 L
Sparge Water : 6.03 L
Boil Time : 90 min
Total Water : 10.08 L

Brewhouse Efficiency: 71.8%
Mash Efficiency: 73.3%

Mash Profile
High fermentability
59 °C - Strike Temp
54.4 °C - 30 min - Protein
63.9 °C - 50 min - Beta
68.3 °C - 40 min - Alpha
75.6 °C - 15 min - Mashout

Fermentation Profile
Ale
9.4 °C - 14 days - Primary
15.6 °C - 3 days - Primary

Water Profile
02 NL Spa Reine Flat Mineral Water (www.ah.nl...
Ca 30 Mg 3 Na 20 Cl 59 SO 30 HCO 17

SO/Cl ratio: 0.5
Mash pH: 5.39
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

Purchase this kit from Bacchus and Barleycorn!
<https://bacchus-and-barleycorn.myshopify.com/products/mean-brews-munich-dunkel-recipe-5-gallon>

Mean Brews - Munich Dunkel

Recipe Notes

Official Meanbrews Munich Dunkel Recipe from the Youtube channel

General notes:

- 1) Feel free to reduce the carafa special malt to suit your desired color, especially if you get your hands on much darker munich malts. Note that decoction will increase the color of this beer.
- 2) If you do not wish to decoct this beer, use a step mash at the stated temperatures in the instructions below, reduce Munich 1 and Munich 2 to 40% each and add 4% Melanoidin to the grist
- 3) if you use WLP 820 as your yeast, increase fermentation temperature to 53 °F(12 °C).

Instructions

- 1) Use a this equation to determine your decoction volume. Always include a bit more and only add enough back to the mash to hit your temps then stop, wait for the remnant decoction mash to reach the main mash temp and put the rest in
- 2) decoction volume = total mash volume * (target temp - start temp) / (boil temp - start temp)
- 3) Each decoction should be THICK. No thin decoctions.
- 4) Protein-to-beta decoction:
 - 4-a) 5 minutes after starting your 30 minute protein rest, Pull your volume to be decocted as a thick decoction (mostly grain just barelly saturated with liquid)
 - 4-b) raise decocted portion to 150°F (66°C) and hold for 10 minutes.
 - 4-c) raise to a gentle boil and boil for 15 minutes stirring continuously.
 - 4-d) Slowly add the decocted portion back to the main mash until you hit 147°F (64°C) and stop. Leave the remaining decocted portion to rest until it reaches 147°F (67°C) then pour the rest into the main mash
- 5) Beta-to-Alpha Decoction:
 - 5-a) 30 minutes into your beta rest, Pull your volume to be decocted as a thick decoction
 - 5-b) raise to a gentle boil and boil for 15 minutes stirring continuously.
 - 5-c) Slowly add the decocted portion back to the main mash until you hit 155°F (68 °C) and stop. Leave the remaining decocted portion to rest until it reaches 155°F (68 °C) then pour the rest into the main mash
- 6) Alpha-to-Mashout Decoction:
 - 6-a) 25 minutes into your Alpha rest, Pull your volume to be decocted as a thick decoction
- 7)
 - 6-b) raise to a gentle boil and boil for 10 minutes stirring continuously.
 - 6-c) Slowly add the decocted portion back to the main mash until you hit 168°F (76°C) and stop. Leave the remaining decocted portion to rest until it reaches 168°F (76°C) then pour the rest into the main mash
- 7) Hold at mashout temperatures for 15 minutes
- 8) Sparge as usual.

Pedigree

Highest 1st Round Score - 41

Gold

2022 Peach State Brew Off, Brewed By Jerad Lengerich, 1st out of 9 entries,
<https://comp.coverthops.com/PSBO/>
2022 Bluffton Brrrnfest, Brewed by Jerad Lengerich