



DARK BEERS, LAGERS



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BREW # _____

DATE BREWED _____

DATE PACKAGED _____

MUNICH DUNKEL

ALL GRAIN RECIPE KIT - 23L Batch



5% ABV - 22 IBU (BR 0.4#)

Deep mahogany with an ivory crown, this dark lager is a celebration of MUNICH malt. With a full spread of fine WEYERMANN malts, expect aromas of roasted hazelnuts, caramelised raisins with chocolate and dark rye bread in the finish making for an extremely moreish brew.

INGREDIENTS

Munich 1 - 3kg
Pilsner - 1kg
Munich 2 - 1kg
Carafa #2 - 220g
Caramunich T1 - 160g

EXTRAS

Whirlfloc Tablet, Yeast Nutrient

** Default Kit ingredients; other options available.
Whirlfloc and Nutrient sold separately.*

HOPS

Hallertau Mittelfruh - 50g
Tettnang - 50g

YEAST*

SafLager W/34-70 Yeast 11.5g
(2 packs recommended)

RECIPE NOTES

Ensure you pitch plenty of healthy yeast into a well aerated wort to ensure a fully attenuated brew.



HOPS MALT

WATER PROFILE

DARK MALTY

Ca² 50, Cl 70, SO₄² 50, HCO 50
Target Mash pH: 5.4

WATER ADDITIONS (RO Water)

Calcium Sulphate: 1.8g
Magnesium Sulphate: 1.3g
Calcium Chloride: 4.3g
Bicarb Soda: 1.8g

WATER ADDITIONS (Brisbane Tap)

Calcium Sulphate: 1g
Calcium Chloride: 1g
Potassium Metabisulphite: 1/4 teaspoon

BREW DAY NUMBERS



^BATCH SIZE 23L
TOTAL WATER 33L
MASH WATER 20L
SPARGE WATER 13L
MASH TEMP 30min @ 63°C
30min @ 70°C
^BOIL VOLUME 28.5L
BOIL TIME 60m
^PRE-BOIL GRAVITY 1.046
ORIGINAL GRAVITY 1.052
MASH EFFICIENCY 75%

^ Determine your pre-boil gravity before making adjustments to your boil volume. Boil longer or add DME/dextrose to increase gravity. Add additional water or shorten boil duration to reduce gravity. Batch size accounts for expected trub losses.

Bitterness Ratio compares original gravity, final gravity and bitterness units to determine the overall bitterness of the beer. 0.5 is considered an average bitterness, whereas 1.5 is very bitter.

BOIL ADDITIONS (60min boil)



60 min 40g HALLERTAU MF



10 min 30g TETTNANG

5 min Whirlfloc Tablet, 1 tsp Yeast Nutrient

0 min Turn off heat

CHILL to 11°C TRANSFER TO FERMENTER

FERMENT 11°C until fermentation slows
DIACETYL REST Raise to 18°C until complete



BREWER'S NOTES eg. check SG, Final Gravity, ABV...