

# CRAB - Munich Dunkel

Munich Dunkel (8 A)

**Type:** All Grain  
**Batch Size:** 95,00 L  
**Boil Size:** 106,52 L  
**Boil Time:** 60 min  
**End of Boil Vol:** 100,52 L  
**Final Bottling Vol:** 91,00 L  
**Fermentation:** Lager, Single Stage  
**Taste Notes:**

**Date:** 12 Jun 2023  
**Brewer:** Brane  
**Asst Brewer:**  
**Equipment:** BRANE - HERMS  
**Efficiency:** 70,00 %  
**Est Mash Efficiency:** 71,1 %  
**Taste Rating:** 30,0



## Ingredients

Amt	Name	Type	#	%/IBU	Volume
127,85 L	Vrbanski plato II	Water	1	-	-
0,35 g	Baking Soda (Mash)	Water Agent	2	-	-
19,00 kg	Munich II (Weyermann) (8,5 SRM)	Grain	3	86,6 %	12,39 L
1,50 kg	Crystal, DRC® (Simpsons) (152,3 SRM)	Grain	4	6,8 %	0,98 L
0,60 kg	Melanoiden Malt (20,0 SRM)	Grain	5	2,7 %	0,39 L
0,50 kg	Barley, Flaked (1,7 SRM)	Grain	6	2,3 %	0,33 L
0,35 kg	Roasted Barley (300,0 SRM)	Grain	7	1,6 %	0,23 L
0,38 g	Baking Soda (Sparge)	Water Agent	8	-	-
40,00 g	Hallertau Magnum [14,00 %] - Boil 60,0 min	Hop	9	14,3 IBUs	-
30,00 g	Styrian Golding (Savinja Golding) [5,25 %] - Boil 60,0...	Hop	10	4,0 IBUs	-
30,00 g	Styrian Goldings [5,40 %] - Boil 5,0 min	Hop	11	0,8 IBUs	-
2,0 pkg	Saflager Lager (DCL/Fermentis #W-34/70) [50,28 ml]	Yeast	12	-	-

## Gravity, Alcohol Content and Color

**Est Original Gravity:** 1,050 SG  
**Est Final Gravity:** 1,011 SG  
**Estimated Alcohol by Vol:** 5,2 %  
**Bitterness:** 19,1 IBUs  
**Est Color:** 20,0 SRM

**Measured Original Gravity:** 1,046 SG  
**Measured Final Gravity:** 1,010 SG  
**Actual Alcohol by Vol:** 4,7 %  
**Calories:** 427,1 kcal/l

## Mash Profile

**Mash Name:** Single Infusion, Medium Body, No Mash Out  
**Sparge Water:** 65,26 L  
**Sparge Temperature:** 75,6 C  
**Adjust Temp for Equipment:** FALSE  
**Est Mash PH:** 5,47  
**Measured Mash PH:** 5,43

**Total Grain Weight:** 21,95 kg  
**Grain Temperature:** 22,2 C  
**Tun Temperature:** 22,2 C  
**Target Mash PH:** 5,30  
**Mash Acid Addition:** 10,1 ml (0,7 tbsp)  
 Lactic Acid (80%)  
**Sparge Acid Addition:** 17,8 ml (1,2 tbsp)  
 Lactic Acid (80%)

## Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 63,25 L of water at 71,8 C	66,0 C	60 min

**Sparge:** Fly sparge with 65,26 L water at 75,6 C

**Mash Notes:** Simple single infusion mash for use with most modern well modified grains (about 95% of the time).

## Carbonation and Storage

**Carbonation Type:** Keg  
**Pressure/Weight:** 0,86 bar  
**Keg/Bottling Temperature:** 7,2 C  
**Fermentation:** Lager, Single Stage  
**Fermenter:**

**Volumes of CO2:** 2,3  
**Carbonation Est:** Keg with 0,86 bar  
**Carbonation (from Meas Vol):** Keg with 0,86 bar  
**Age for:** 30,00 days  
**Storage Temperature:** 15,6 C

Notes

*Created with BeerSmith*