

# 177 Helles

Münchener helles (1 E)

**Type:** All Grain  
**Batch Size:** 25,00 L  
**Boil Size:** 30,12 L  
**Boil Time:** 60 min  
**End of Boil Vol:** 28,12 L  
**Final Bottling Vol:** 23,00 L  
**Fermentation:** Ale, Two Stage

**Date:** 22 Jun 2024  
**Brewer:** MortenBryg  
**Asst Brewer:**  
**Equipment:** Beacon 40 bud  
**Efficiency:** 70,00 %  
**Est Mash Efficiency:** 75,6 %  
**Taste Rating:** 30,0



**Taste Notes:**

## Ingredients

Amt	Name	Type	#	%/IBU	Volume
10,00 ml	Lactic Acid (Mash)	Water Agent	1	-	-
6,00 kg	Pilsner Malt (3,0 EBC)	Grain	2	96,8 %	3,91 L
0,20 kg	Chateau Cara Gold (120,0 EBC)	Grain	3	3,2 %	0,13 L
30,00 g	Hallertauer Mittelfrueh [5,10 %] - Boil 60,0 min	Hop	4	14,8 IBUs	-
30,00 g	Hallertauer Mittelfrueh [5,10 %] - Boil 15,0 min	Hop	5	7,3 IBUs	-
2,0 pkg	SafLager German Lager (DCL/Fermentis #S-189) [23...	Yeast	6	-	-

## Gravity, Alcohol Content and Color

**Est Original Gravity:** 1,052 SG  
**Est Final Gravity:** 1,013 SG  
**Estimated Alcohol by Vol:** 5,2 %  
**Bitterness:** 22,1 IBUs  
**Est Color:** 10,7 EBC

**Measured Original Gravity:** 1,054 SG  
**Measured Final Gravity:** 1,008 SG  
**Actual Alcohol by Vol:** 6,1 %  
**Calories:** 501,4 kcal/l

## Mash Profile

**Mash Name:** Single Infusion, Medium Body  
**Sparge Water:** 11,33 L  
**Sparge Temperature:** 75,6 C  
**Adjust Temp for Equipment:** FALSE  
**Est Mash PH:** 5,70  
**Measured Mash PH:** 0,00

**Total Grain Weight:** 6,20 kg  
**Grain Temperature:** 22,2 C  
**Tun Temperature:** 22,2 C  
**Target Mash PH:** 5,20  
**Mash Acid Addition:** None  
**Sparge Acid Addition:** None

## Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 25,00 L of water at 70,1 C	66,0 C	60 min
Mash Out	Add 0,00 L of water at 78,0 C	78,0 C	20 min

**Sparge:** Fly sparge with 11,33 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:** Bottle  
**Pressure/Weight:** 123,10 g  
**Keg/Bottling Temperature:** 21,1 C  
**Fermentation:** Ale, Two Stage  
**Fermenter:**

**Volumes of CO2:** 2,3  
**Carbonation Est:** Bottle with 123,10 g Table Sugar  
**Carbonation (from Meas Vol):** Bottle with 123,10 g Table Sugar  
**Age for:** 30,00 days

**Storage Temperature:** 18,3 C

## Notes

50% RO vand

ca. 26L ca. 30 grader varmt i hvid plaskspand med skruelåg sat i ferminsato sat til 9 grader luft.

Gær tilsættes ved 11 grader.

23/6 eftermiddag:

gær tilsat.

28/7:

6 gram sukker/liter

1 x 19L fad

8 x 0,5L flasker

*Created with BeerSmith*