

# 104 Helles Brewster

Münchener helles (1 E)

**Type:** All Grain  
**Batch Size:** 20,00 L  
**Boil Size:** 23,83 L  
**Boil Time:** 90 min  
**End of Boil Vol:** 20,83 L  
**Final Bottling Vol:** 18,50 L  
**Fermentation:** Ale, Two Stage

**Date:** 31 Oct 2021  
**Brewer:** MortenBryg  
**Asst Brewer:**  
**Equipment:** Brewster Beacon 70  
 Mortenbryg forsÅ,g  
**Efficiency:** 70,00 %  
**Est Mash Efficiency:** 70,0 %  
**Taste Rating:** 30,0



## Taste Notes:

## Ingredients

Amt	Name	Type	#	%/IBU	Volume
4,35 kg	Chateau Pilsner 2 Row (3,2 EBC)	Grain	1	94,6 %	2,84 L
0,25 kg	Carahell (Weyermann) (25,6 EBC)	Grain	2	5,4 %	0,16 L
13,00 g	Hallertau Blanc [9,20 %] - Boil 60,0 min	Hop	3	16,2 IBUs	-
5,00 g	Hallertau Blanc [9,20 %] - Boil 30,0 min	Hop	4	4,8 IBUs	-
1,00 Items	Protafloc (Boil 15,0 mins)	Fining	5	-	-
0,5 pkg	Harvest (Imperial Yeast #L17)	Yeast	6	-	-

## Gravity, Alcohol Content and Color

**Est Original Gravity:** 1,050 SG  
**Est Final Gravity:** 1,012 SG  
**Estimated Alcohol by Vol:** 5,0 %  
**Bitterness:** 21,0 IBUs  
**Est Color:** 8,0 EBC

**Measured Original Gravity:** 1,063 SG  
**Measured Final Gravity:** 1,012 SG  
**Actual Alcohol by Vol:** 6,8 %  
**Calories:** 595,0 kcal/l

## Mash Profile

**Mash Name:** Single Infusion, Medium Body  
**Sparge Water:** 4,44 L  
**Sparge Temperature:** 75,6 C  
**Adjust Temp for Equipment:** FALSE  
**Est Mash PH:** 5,71  
**Measured Mash PH:** 0,00

**Total Grain Weight:** 4,60 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 69,1 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 4,44 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:** 99,02 g  
**Keg/Bottling Temperature:** 21,1 C  
**Fermentation:** Ale, Two Stage  
**Fermenter:**

**Volumes of CO2:** 2,3  
**Carbonation Est:** Bottle with 99,02 g  
 Table Sugar  
**Carbonation (from Meas Vol):** Bottle  
 with 104,37 g Table Sugar  
**Age for:** 30,00 days

**Storage Temperature:** 18,3 C

## Notes

70% RO vand 38,5L

Imperial L17 harvest: Temp: 10–16C Flocculation: Medium Attenuation: 70–74% Alcohol Tolerance: 10%

Pumpen på vores Brewster var død. Der måtte tænkes alternativt. Vi delte brygget i 2. Den ene del blev brygget i gryde. Den anden del bryggede vi i Brewsteren uden pumpe og derved uden cirkulering.

Sparge 5L

26L urt start boil. 22L slut boil. Så 20L i spand.

OG måling muligvis påvirket af bundfald. Så den kan være forkert.

Der va tydeligt mere alkohol end i den anden. Så det er nok ikke helt ved siden af.

3 uger i brygskab, 5 dage i fyrrum, 6 dage udenfor ved frost til 5 grader.

121g rørsukker. = 5,9g/L

Nok ca. 1L i gryden fra det andet bryg.

1 x 9L fad

23 x 0,5L flasker

20,5L

*Created with BeerSmith*