

# Kölsch bryg nr 118

Kölsch (6 C)

**Type:** All Grain

**Batch Size:** 310,00 L

**Boil Size:** 372,16 L

**Boil Time:** 90 min

**End of Boil Vol:** 354,16 L

**Final Bottling Vol:** 300,00 L

**Fermentation:** Koelsch (Kolsch), Two Stage

**Taste Notes:** Kalkuleret en mæskeeff på 77, men den var hele 83%. (bryg 105)

**Date:** 09 Oct 2021

**Brewer:** Per, Nis, Leif og Nicolai og Jan

**Asst Brewer:** Øster Løgum Bryghus

**Equipment:** 300 L Polsinelli 100%

**Efficiency:** 75,00 %

**Est Mash Efficiency:** 82,3 %

**Taste Rating:** 0,0



## Prepare for Brewing

- Create a yeast starter with 25,00 L of wort (2529,67 g dry malt extract)
- Clean and Prepare Brewing Equipment
- Total Water Needed: 456,27 L
- Mash Water Acid: 72,9 ml (4,9 tbsp) Lactic Acid (88%)

## Water Prep

Amt	Name	Type	#	%/IBU	Volume
455,00 L	Øster Løgum Vand	Water	1	-	-
35,00 ml	Lactic Acid (Mash)	Water Agent	2	-	-
35,00 ml	Lactic Acid (Mash)	Water Agent	3	-	-
15,00 g	Epsom Salt (MgSO4) (Mash)	Water Agent	4	-	-
4,37 g	Calcium Chloride (Mash)	Water Agent	5	-	-
3,77 g	Salt (Mash)	Water Agent	6	-	-
0,43 g	Gypsum (Calcium Sulfate) (Mash)	Water Agent	7	-	-

## Mash or Steep Grains

### Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
41,50 kg	CHÂTEAU PILSEN 2RS (3,0 EBC)	Grain	8	56,1 %	27,06 L
22,00 kg	CHÂTEAU PALE ALE (8,5 EBC)	Grain	9	29,7 %	14,34 L
10,50 kg	CHÂTEAU MUNICH LIGHT® (15,0 EBC)	Grain	10	14,2 %	6,85 L
60,00 ml	Amylase Enzyme (Mash 60,0 mins)	Other	11	-	-
20,00 g	Epsom Salt (MgSO4) (Sparge)	Water Agent	12	-	-
5,35 g	Calcium Chloride (Sparge)	Water Agent	13	-	-
4,61 g	Salt (Sparge)	Water Agent	14	-	-
0,53 g	Gypsum (Calcium Sulfate) (Sparge)	Water Agent	15	-	-

## Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 232,00 L of water at 70,4 C	64,4 C	75 min

- Sparge Water Acid: 62,2 ml (4,2 tbsp) Lactic Acid (88%)
- Fly sparge with 224,27 L water at 75,6 C
- Add water to achieve boil volume of 372,16 L
- Estimated pre-boil gravity is 1,051 SG

## Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
300,00 g	Citra [12,00 %] - Boil 60,0 min	Hop	16	23,0 IBUs	-
15,00 g	EuroGel 10 g / 250 liter (Boil 15,0 mins)	Fining	17	-	-
55,00 g	Perle - Hallertau [8,00 %] - Boil 15,0 min	Hop	18	1,7 IBUs	-
300,00 g	Perle - Hallertau [8,00 %] - Boil 10,0 min	Hop	19	8,0 IBUs	-
10,00 g	Yeast Nutrient (Boil 10,0 mins)	Other	20	-	-

- Estimated Post Boil Vol: 354,16 L and Est Post Boil Gravity: 1,056 SG

## Cool and Transfer Wort

- Cool wort to fermentation temperature
- Transfer wort to fermenter

- Add water if needed to achieve final volume of 310,00 L

### Pitch Yeast and Measure Gravity and Volume

#### Fermentation Ingredients

Amt	Name	Type	#	%/IBU	Volume
7,0 pkg	German Ale/Kolsch (White Labs #WLP029) [35,49 ml]	Yeast	21	-	-

- Measure Actual Original Gravity \_\_\_\_\_ (Target: 1,056 SG)  
 Measure Actual Batch Volume \_\_\_\_\_ (Target: 310,00 L)

#### Fermentation

- 09 Oct 2021 - Primary Fermentation (3,00 days at 16,0 C ending at 16,0 C)  
 12 Oct 2021 - Secondary Fermentation (11,00 days at 16,0 C ending at 16,0 C)  
 23 Oct 2021 - Tertiary Fermentation (4,00 days at 20,0 C ending at 17,0 C)

#### Dry Hop and Bottle/Keg

- Measure Final Gravity: \_\_\_\_\_ (Estimate: 1,010 SG)  
 Date Bottled/Kegged: 27 Oct 2021 - Carbonation: Bottle with 1605,64 g Table Sugar  
 Age beer for 30,00 days at 17,0 C  
 26 Nov 2021 - Drink and enjoy!

#### Notes