

## 21. Kölsch

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- Gravity **12.7 BLG**
- ABV ---
- IBU **39**
- SRM **7.5**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **0 %**
- Size with trub loss **30 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **35.67 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.83 liter(s)**
- Total mash volume **26.44 liter(s)**

### Steps

- Temp **54 C**, Time **10 min**
- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **19.83 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **10 min** at **54C**
- Keep mash **50 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **35.67 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (Weyermann)	3.3 kg	82.23 %	7
Grain	Castle Malting Pilsen 2RS	2 kg	81 %	8
Grain	BestMälz Caramel Pils	0.5 kg	78 %	12
Grain	Munich Malt	0.41 kg	80 %	46
Grain	Wheat Malt, Ger	0.3 kg	84 %	9
Grain	Acidulated (Weyermann)	0.1 kg	65.2 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	German Tradition	25 g	70 min	6 %
Boil	Columbus (Tomahawk)	20 g	40 min	14 %
Boil	Perle	20 g	10 min	8 %
Boil	Perle	50 g	0 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
German Ale	Ale	Liquid	124 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Other	Pożywka Wyeast	3 g	Boil	15 min