

## #172 Kölsch

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **3.7**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **4 %**
- Size with trub loss **16.6 liter(s)**
- Boil time **65 min**
- Evaporation rate **16 %/h**
- Boil size **21.4 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4.3 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **23.1 liter(s)**

### Steps

- Temp **48 C**, Time **1 min**
- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **18.7 liter(s)** of strike water to **51.3C**
- Add grains
- Keep mash **1 min** at **48C**
- Keep mash **10 min** at **52C**
- Keep mash **35 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **7.1 liter(s)** of **76C** water or to achieve **21.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Heidelberg	3.45 kg (79.3%)	80.5 %	3
Grain	Weyermann - Acidulated Malt	0.6 kg (13.8%)	80 %	6
Grain	Viking Wheat Malt	0.3 kg (6.9%)	83 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Diamant	15 g	60 min	4.2 %
Aroma (end of boil)	Diamant	40 g	15 min	4.2 %
Boil	Saaz	20 g	15 min	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand Koelsch	Ale	Dry	11 g	Lallemand

## Extras

Type	Name	Amount	Use for	Time
Fining	WhirlFloc	1.3 g	Boil	12 min
Other	Pożywka dla drożdży	1.5 g	Boil	10 min
Other	Witamina C	1.85 g	Secondary	7 day(s)