

## Kölsch 2

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- Gravity **12.1 BLG**
- ABV ---
- IBU **45**
- SRM **4.3**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.5 kg (45.5%)	85 %	7
Grain	Weyermann - Bohemian Pilsner Malt	3 kg (54.5%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga	40 g	60 min	11.1 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	0 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
M54 california lager	Lager	Dry	10 g	Mangrove jacks

### Extras

Type	Name	Amount	Use for	Time
Finning	Irish Moss	4 g	Boil	10 min