

## #14 Koelsch

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **4.1**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **22.6 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4.14 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.1 liter(s)**

### Steps

- Temp **43 C**, Time **30 min**
- Temp **66 C**, Time **30 min**
- Temp **70 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **45.8C**
- Add grains
- Keep mash **30 min** at **43C**
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **70C**
- Keep mash **0 min** at **78C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **22.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.7 kg (90.2%)	81 %	5
Grain	Weyermann - Light Munich Malt	0.4 kg (9.8%)	82 %	14

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	30 g	60 min	5 %
Boil	Hallertau Tradition	20 g	10 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	---

### Extras

Type	Name	Amount	Use for	Time
Finings	whirflock	3 g	Boil	15 min