

## Kölsch v.2

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- Gravity **13.1 BLG**
- ABV ---
- IBU **24**
- SRM **3.8**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **22.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.8 liter(s)**

### Steps

- Temp **45 C**, Time **1 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **10.8 liter(s)** of strike water to **49.6C**
- Add grains
- Keep mash **1 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (82.4%)	81 %	4
Grain	Pszeniczny	0.5 kg (11.8%)	85 %	4
Sugar	cukier	0.25 kg (5.9%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10.5 %
Boil	Saaz (Czech Republic)	20 g	30 min	4.5 %
Boil	Hallertau Spalt Select	20 g	10 min	2.8 %
Boil	Saaz (Czech Republic)	10 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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s-33	Ale	Dry	10 g	fermentis
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