

## Koelsch ver.3

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **15**
- SRM **3.7**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **5 liter(s)**
- Trub loss **10 %**
- Size with trub loss **5.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **17 %/h**
- Boil size **7.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **5.2 liter(s)**
- Total mash volume **6.5 liter(s)**

### Steps

- Temp **54 C**, Time **15 min**
- Temp **65 C**, Time **30 min**
- Temp **75 C**, Time **40 min**

### Mash step by step

- Heat up **5.2 liter(s)** of strike water to **58.3C**
- Add grains
- Keep mash **15 min** at **54C**
- Keep mash **30 min** at **65C**
- Keep mash **40 min** at **75C**
- Sparge using **3.6 liter(s)** of **76C** water or to achieve **7.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.1 kg (84.6%)	81 %	4
Grain	Pszeniczny	0.2 kg (15.4%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	6 g	60 min	4 %
Boil	Lublin (Lubelski)	8 g	10 min	4 %
Dry Hop	Lublin (Lubelski)	10 g	7 day(s)	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Lager	Dry	4 g	Safbrew