

## #154 Kölsch

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **26**
- SRM **4.2**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **15 %**
- Size with trub loss **19.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

### Steps

- Temp **62 C**, Time **20 min**
- Temp **67 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.4 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	3.4 kg (76.4%)	80.5 %	2
Grain	Strzegom Monachijski typ I	1 kg (22.5%)	79 %	16
Sugar	Brown Sugar, Light	0.05 kg (1.1%)	100 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	12 g	60 min	13.5 %
Boil	Tettnang	30 g	10 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
K-97	Ale	Dry	11 g	Fermentis