

## kolsch II

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **3.9**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **19.1 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **14.2 liter(s)** of strike water to **57.5C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (81.6%)	81 %	4
Grain	Monachijski	0.3 kg (6.1%)	80 %	16
Grain	Pszeniczny	0.3 kg (6.1%)	85 %	4
Grain	Płatki owsiane	0.3 kg (6.1%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	20 g	60 min	4.5 %
Boil	Magnum	8 g	60 min	13.5 %
Boil	Cascade	15 g	10 min	6 %