

## #17 Kolsch (Klarstein)

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **20**
- SRM **3.9**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **28.1 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21.9 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (80%)	80 %	4
Grain	Pszeniczny	1 kg (16%)	85 %	4
Grain	Golden Ale	0.25 kg (4%)	78 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	30 g	60 min	5.5 %
Boil	Hallertau Spalt Select	20 g	15 min	4.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Kolsch Style Ale Yeast	Ale	Dry	11 g	Lallemand