

# Kölsch

- Gravity **13 BLG**
- ABV ---
- IBU **28**
- SRM **4**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **17.5 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 **13.1 liter(s)** of strike water to **49.2C**
- 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 **16 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Sugar	cukier	0.3 kg (6.4%)	100 %	3
Grain	Weyermann pszeniczny jasny	0.3 kg (6.4%)	80 %	6
Grain	Pilzneński	4.07 kg (87.2%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	11.2 %
Boil	Hallertau Spalt Select	15 g	30 min	4 %
Boil	Tettnang	20 g	15 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis