

# Kölsch

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **27**
- SRM **3.4**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **19.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.9 liter(s)**

## Steps

- Temp **53.5 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 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53.5C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.45 kg (88.5%)	80 %	4
Grain	Pszeniczny	0.45 kg (11.5%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	3.6 %
Boil	Lublin (Lubelski)	23 g	30 min	3.6 %
Boil	Lublin (Lubelski)	10 g	10 min	3.6 %
Boil	Saaz (Czech Republic)	15.5 g	10 min	3.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
S-33	Ale	Slant	1200 ml	---

## Extras

Type	Name	Amount	Use for	Time
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Fining	Mech Irlandzki	4 g	Boil	15 min
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