

# Koelsch

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **19**
- SRM **3.6**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **15.2 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 **5 min**

## Mash step by step

- Heat up **11.1 liter(s)** of strike water to **57.9C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.7 kg (90.2%)	81 %	5
Grain	Weyermann pszeniczny jasny	0.4 kg (9.8%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Spalt Select	30 g	60 min	4.6 %
Boil	Perle	2 g	60 min	7 %
Aroma (end of boil)	Relax	30 g	15 min	1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis