

# Koelsch

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **3.3**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **55 liter(s)**
- Trub loss **2 %**
- Size with trub loss **56.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **64.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **33 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **42.7 liter(s)** of **76C** water or to achieve **64.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	9 kg (78.9%)	80 %	4
Grain	Słód pszeniczny	2 kg (17.5%)	82 %	5
Adjunct	Łuska ryżowa	0.4 kg (3.5%)	1 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	50 g	60 min	5.2 %
Boil	Cascade PL	50 g	30 min	5.2 %
Aroma (end of boil)	Cascade PL	40 g	10 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	22 g	Fermentis