## #172 Kölsch

- Gravity 12.1 BLG
- ABV 4.9 %
- IBU **28**
- SRM 3.7
- Style Kölsch

## **Batch size**

- Expected quantity of finished beer 16 liter(s)
- Trub loss 4 %
- Size with trub loss 16.6 liter(s)
- · Boil time 65 min
- Evaporation rate 16 %/h
- Boil size 21.4 liter(s)

## **Mash information**

- Mash efficiency 65 %
- Liquor-to-grist ratio 4.3 liter(s) / kg Mash size 18.7 liter(s)
- Total mash volume 23.1 liter(s)

## **Steps**

- Temp **48 C**, Time **1 min** Temp **52 C**, Time **10 min**
- Temp 65 C, Time 35 min
- Temp 72 C, Time 15 min
  Temp 78 C, Time 2 min

## Mash step by step

- Heat up 18.7 liter(s) of strike water to 51.3C
- Add grains
- Keep mash 1 min at 48C
- Keep mash 10 min at 52C
- Keep mash 35 min at 65C
- Keep mash 15 min at 72C
- Keep mash 2 min at 78C
- Sparge using 7.1 liter(s) of 76C water or to achieve 21.4 liter(s) of wort

## **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Heidelberg	3.45 kg <i>(79.3%)</i>	80.5 %	3
Grain	Weyermann - Acidulated Malt	0.6 kg <i>(13.8%)</i>	80 %	6
Grain	Viking Wheat Malt	0.3 kg (6.9%)	83 %	5

#### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Diamant	15 g	60 min	4.2 %
Aroma (end of boil)	Diamant	40 g	15 min	4.2 %
Boil	Saaz	20 g	15 min	5.2 %

## **Yeasts**

Name	Туре	Form	Amount	Laboratory
Lallemand Koelsch	Ale	Dry	11 g	Lallemand

# **Extras**

Туре	Name	Amount	Use for	Time
Fining	WhirlFloc	1.3 g	Boil	12 min
Other	Pożywka dla drożdży	1.5 g	Boil	10 min
Other	Witamina C	1.85 g	Secondary	7 day(s)