

Kölsch

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **22**
- SRM **3.3**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.1 liter(s)**

Steps

- Temp **45 C**, Time **0 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 **13.8 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **0 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 **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.9 kg (90.7%)	81 %	4
Grain	Pszeniczny	0.4 kg (9.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Whirlpool	Mittelfruh	30 g	15 min	5 %

Yeasts

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