

05B. Kölsch

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **25**
- SRM **3.5**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **3 %**
- Size with trub loss **19.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **21.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.05 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **68.3C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **21.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.9 kg (92.9%)	81 %	4
Grain	Pszeniczny	0.3 kg (7.1%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	13 g	60 min	11 %
Aroma (end of boil)	Spalt Select	30 g	15 min	3.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
lutra	Ale	Slant	120 ml	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	CaSO4	3 g	Boil	60 min
Flavor	ogórki	1500 g	Secondary	5 day(s)