kolsch

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **4.2**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.2 kg *(72.2%)*	81 %	4
Grain	Viking Pale Ale malt	1 kg *(13.9%)*	80 %	5
Grain	Pszeniczny	1 kg *(13.9%)*	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	45 g	60 min	4 %
Boil	Lublin (Lubelski)	15 g	20 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	100 ml	Fermentum Mobile