

Kölsch

- Gravity **13.1 BLG**
- ABV ---
- IBU **45**
- SRM **4.5**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **19.8 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3 kg (53.1%)	81 %	4
Grain	Briess - 2 Row Carapils Malt	0.5 kg (8.8%)	75 %	3
Grain	Briess - Pale Ale Malt	2 kg (35.4%)	80 %	7
Grain	Acid Malt	0.15 kg (2.7%)	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga	25 g	60 min	11.1 %
Boil	Lublin (Lubelski)	25 g	60 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
M54 california lager	Lager	Dry	10 g	Mangrove jacks