

Kolsh

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **3.7**
- 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 **11 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.7 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **55 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **55 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	MEP@Lager	3.5 kg (94.6%)	82 %	6
Grain	Strzegom Pszeniczny	0.2 kg (5.4%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	18 g	60 min	5.5 %
Boil	Hallertau Blanc	10 g	15 min	9 %
Boil	Hallertau Blanc	10 g	10 min	9 %
Boil	Hallertau Blanc	10 g	5 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP029 - German Ale/Kölsch Yeast	Ale	Slant	100 ml	White Labs