

## #18.C05.4 Kölsch

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **26**
- SRM **3.3**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	4.5 kg (100%)	80.5 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	30 g	60 min	3.3 %
Boil	Hallertau Spalt Select	30 g	60 min	3.4 %
Aroma (end of boil)	Tettnang	15 g	10 min	3.3 %
Aroma (end of boil)	Hallertau Spalt Select	15 g	10 min	3.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	34 ml	Fermentum Mobile