

# KOELSH #5

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **19**
- SRM **3.4**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.5 kg (90%)	82 %	4
Grain	Chleb żytni	0.5 kg (10%)	70 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	25 g	60 min	7.6 %
Aroma (end of boil)	Northern Brewer	25 g	0 min	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
lallemand - koeln	Ale	Slant	200 ml	Lallemand