

# Ddh Kolsch

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **3.2**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **10 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

## Steps

- Temp **61 C**, Time **40 min**
- Temp **71 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.7 liter(s)** of strike water to **67.8C**
- Add grains
- Keep mash **40 min** at **61C**
- Keep mash **20 min** at **71C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (89.7%)	81 %	4
Grain	Pszeniczny	0.4 kg (10.3%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.5 %
Whirlpool	Centennial	30 g	10 min	10.5 %
Dry Hop	Azacca	25 g	3 day(s)	14 %
Dry Hop	Sabro	25 g	3 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	40 ml	Fermentum Mobile