

# kolsch

- Gravity **11.9 BLG**
- ABV ---
- IBU **28**
- SRM **4.5**
- 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 **61 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.1 liter(s)**
- Total mash volume **19.4 liter(s)**

## Steps

- Temp **43 C**, Time **10 min**
- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15.1 liter(s)** of strike water to **46.3C**
- Add grains
- Keep mash **10 min** at **43C**
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.7 kg (86%)	80 %	4
Grain	Strzegom pszeniczny	0.4 kg (9.3%)	81 %	6
Grain	Strzegom Monachijski typ II	0.2 kg (4.7%)	79 %	22

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-33	Ale	Dry	11.5 g	fermentis

## Extras

Type	Name	Amount	Use for	Time
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Flavor	kolędra	15 g	Boil	10 min
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