

## Kölsch #36 v.2

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- Gravity **11.4 BLG**
- ABV ---
- IBU **30**
- SRM **5.5**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **44.3 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **30.2 liter(s)**

### Steps

- Temp **45 C**, Time **10 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **23.5 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **27.5 liter(s)** of **76C** water or to achieve **44.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Orkiszowy	0.5 kg (7.5%)	82 %	4
Grain	Viking Przeniczny	0.5 kg (7.5%)	80 %	5
Grain	Pilzneński klepiskowy Bruntal	1 kg (14.9%)	80 %	4
Grain	Pale Ale Malt	0.88 kg (13.1%)	75 %	5
Grain	Pilzneński Premium Wyermann	3.5 kg (52.2%)	81 %	4
Grain	Strzegom Karmel 150	0.33 kg (4.9%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer U	40 g	60 min	7.6 %
Aroma (end of boil)	Perle U	30 g	20 min	7 %
Boil	Saaz A	23 g	10 min	4 %

### Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
B44 Bulldog	Ale	Dry	20 g	Bulldog