

## Koelsch - duze gary

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **21**
- SRM **3.5**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **1000 liter(s)**
- Trub loss **2 %**
- Size with trub loss **1020 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **1176 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **645 liter(s)**
- Total mash volume **860 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **645 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **746 liter(s)** of **76C** water or to achieve **1176 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	172 kg (80%)	80 %	4
Grain	Słód pszeniczny	43 kg (20%)	82 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	900 g	30 min	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	900 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	300g świeżych liści kafir - blenderem ze spirtusem	300 g	Secondary	2 day(s)