

## 4711

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **3.3**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.2 kg (100%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	40 g	60 min	5 %
Boil	Perle	10 g	10 min	5 %
Boil	Perle	10 g	10 min	5.5 %
Boil	Perle	10 g	5 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Dry	11.5 g	Fermentis