

Kelsz 11*

- Gravity **11 BLG**
- ABV ---
- IBU **17**
- SRM **3.7**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **56.8C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.45 kg (88.5%)	88 %	4
Grain	Pszeniczny	0.45 kg (11.5%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %
Boil	Lublin (Lubelski)	10 g	10 min	4 %

Yeasts

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