

Kelner

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **43**
- SRM **26.9**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **68.5 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76.6C**
- Add grains
- Keep mash **75 min** at **68.5C**
- Keep mash **5 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.7 kg (62.8%)	85 %	7
Grain	Strzegom Monachijski typ II	1 kg (23.3%)	79 %	22
Grain	Fawcett - Pale Chocolate	0.25 kg (5.8%)	71 %	600
Grain	Weyermann - Chocolate Wheat	0.25 kg (5.8%)	74 %	788
Grain	Carafa III	0.1 kg (2.3%)	70 %	1034

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Boil	Magnum	10 g	30 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
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Flavor	Laktoza	540 g	Boil	5 min
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