

Koniec lata

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **55**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.7 kg (88.1%)	81 %	4
Grain	Pszeniczny	0.3 kg (7.1%)	85 %	4
Grain	Strzegom Karmel 150	0.2 kg (4.8%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	25 g	50 min	12 %
Boil	Amarillo	5 g	30 min	9.5 %
Boil	Sabro	5 g	30 min	15 %
Boil	Mosaic	5 g	30 min	10 %
Boil	Amarillo	15 g	5 min	9.5 %
Boil	Sabro	15 g	5 min	15 %
Boil	Mosaic	15 g	5 min	10 %

Yeasts

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