

ppa 2024

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **38**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **14.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt r	2.5 kg (83.3%)	93 %	4
Grain	Viking Munich Malt	0.5 kg (16.7%)	88 %	18

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat r	5 g	60 min	12 %
Boil	Marynka	15 g	22 min	7.3 %
Boil	Lublin (Lubelski)	15 g	22 min	4.3 %
Boil	Marynka	15 g	12 min	7.3 %
Boil	Lublin (Lubelski)	15 g	12 min	4.3 %
Dry Hop	Zula	30 g	7 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis