

Apa

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **63**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **75C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (75.5%)	80 %	5
Grain	Pszeniczny	1 kg (18.9%)	85 %	4
Grain	Caraamber	0.3 kg (5.7%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	12.8 %
Boil	Mosaic	15 g	30 min	12.5 %
Boil	Amarillo	15 g	30 min	7.9 %
Boil	Amarillo	15 g	10 min	9.5 %
Boil	Citra	15 g	0 min	12.3 %
Dry Hop	Citra	15 g	5 day(s)	12.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
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Fining	Irish Moss	3 g	Boil	10 min
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