

Nie pale

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **31**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **73 C**, Time **20 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **73C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Karmelowy 50 - Viking Malt	1 kg (14.3%)	79 %	50
Grain	Viking Pilsner malt	1 kg (14.3%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	80 g	5 min	12 %
Boil	Citra	20 g	30 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	15 g	Fermentis