

APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **44**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.3 liter(s) / kg**
- Mash size **20.2 liter(s)**
- Total mash volume **24.9 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (85.1%)	80 %	5
Grain	Carabody Viking Malt	0.2 kg (4.3%)	80 %	8
Grain	Płatki owsiane	0.5 kg (10.6%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Horizon	20 g	60 min	14 %
Aroma (end of boil)	Horizon	10 g	10 min	14 %
Aroma (end of boil)	Summit	10 g	10 min	17 %
Aroma (end of boil)	Summit	20 g	0 min	17 %
Aroma (end of boil)	Nugget	10 g	0 min	13 %
Aroma (end of boil)	Ekuanot	10 g	0 min	14 %
Dry Hop	Nugget	20 g	3 day(s)	13 %
Dry Hop	Ekuanot	20 g	3 day(s)	14 %

Yeasts

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