

APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **31**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **30.1 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **23.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (89.6%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg (4.5%)	75 %	30
Grain	Płatki owsiane	0.4 kg (6%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	6.8 %
Boil	Hallertau	30 g	25 min	5.2 %
Boil	Cascade PL	25 g	15 min	4 %
Aroma (end of boil)	Marynka	25 g	0 min	6.8 %
Aroma (end of boil)	Hallertau	30 g	0 min	5.2 %
Aroma (end of boil)	Cascade PL	25 g	0 min	4 %
Dry Hop	Hallertau	20 g	3 day(s)	5.2 %
Dry Hop	Cascade PL	20 g	3 day(s)	4 %

Yeasts

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