

APA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **30**
- SRM **4.8**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 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 **19.6 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 **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (89.3%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.2 kg (3.6%)	75 %	30
Grain	Płatki owsiane	0.4 kg (7.1%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	20 g	45 min	12.6 %
Boil	Cascade PL	20 g	10 min	7.6 %
Aroma (end of boil)	Amarillo	20 g	0 min	8.2 %
Aroma (end of boil)	Cascade PL	10 g	0 min	5.2 %
Aroma (end of boil)	Mosaic	20 g	0 min	10 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %
Dry Hop	Cascade PL	20 g	4 day(s)	5.2 %

Yeasts

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