

#1 APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **27**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss --- %
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **25 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 **19.4 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 **14 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (90.1%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.15 kg (2.7%)	75 %	30
Grain	Płatki owsiane	0.4 kg (7.2%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	25 g	45 min	10 %
Boil	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Amarillo	20 g	0 min	9.5 %
Aroma (end of boil)	Cascade	30 g	0 min	6 %
Aroma (end of boil)	Mosaic	25 g	0 min	10 %

Yeasts

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