APA

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **27**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.7 liter(s)**
- Total mash volume **10.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **7.7 liter(s)** of strike water to **75.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **8.9 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.2 kg *(86.3%)*	82 %	4
Grain	Płatki owsiane	0.25 kg *(9.8%)*	60 %	3
Grain	Słód Cookie Viking Malt	0.1 kg *(3.9%)*	72 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	5 g	5 min	12.3 %
Whirlpool	Mosaic	20 g	10 min	12.3 %
Whirlpool	Citra	30 g	10 min	12.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M36 Liberty Bell Ale	Ale	Dry	11.5 g	---