

APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **32**
- SRM **6.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **14.6 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **4.6 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.8 kg (55.4%)	80 %	5
Grain	Płatki pszeniczne	0.7 kg (21.5%)	85 %	3
Grain	Viking Malt Karmelowy 50	0.25 kg (7.7%)	80 %	50
Grain	Płatki owsiane	0.5 kg (15.4%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Magnum	8 g	60 min	11.7 %
Boil	Cascade PL	10 g	15 min	5.8 %
Aroma (end of boil)	Chinook	8 g	5 min	12.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	400 ml	---

Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa	100 g	Mash	60 min

Fining	Mech Irlandzki	3 g	Boil	10 min
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