APA V1

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **11.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **67 C**, Time **90 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(87.7%)*	80 %	5
Grain	Pszeniczny	0.5 kg *(8.8%)*	85 %	4
Grain	Carafa	0.2 kg *(3.5%)*	70 %	664

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	40 min	9.5 %
Aroma (end of boil)	Amarillo	20 g	10 min	9.5 %
Aroma (end of boil)	Simcoe	20 g	5 min	13.2 %
Aroma (end of boil)	Amarillo	10 g	5 min	9.5 %
Aroma (end of boil)	Simcoe	10 g	1 min	13.2 %
Dry Hop	Simcoe	20 g	5 day(s)	13.2 %

Yeasts

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

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