

APA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **19**
- SRM **3.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.3 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (78.4%)	80 %	5
Grain	Strzegom Monachijski typ I	0.25 kg (6.5%)	79 %	16
Grain	Płatki owsiane	0.578 kg (15.1%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	12 g	60 min	14.5 %
Whirlpool	Cascade	25 g	0 min	7.1 %
Whirlpool	Citra	25 g	0 min	12.5 %
Dry Hop	Centennial	50 g	5 day(s)	10.5 %
Dry Hop	Citra	10 g	5 day(s)	12.5 %
Dry Hop	Cascade	20 g	5 day(s)	7.1 %

Yeasts

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