

APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (94.7%)	80 %	5
Grain	Pszeniczny	0.25 kg (5.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	20 g	10 min	15 %
Boil	Citra	20 g	15 min	12 %
Aroma (end of boil)	Galaxy	25 g	0 min	15 %
Whirlpool	Citra	25 g	20 min	1 %
Dry Hop	Galaxy	100 g	3 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	---