

APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **39**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **19 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **19 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (8.3%)	79 %	16
Grain	Pszeniczny	0.5 kg (8.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	12.2 %
Boil	Sorachi Ace	15 g	15 min	11.3 %
Boil	Sorachi Ace	20 g	5 min	11.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	1500 ml	---