

APA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **52**
- SRM **9.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (50.8%)	80 %	7
Grain	Płatki owsiane	0.4 kg (6.8%)	85 %	3
Grain	Strzegom Monachijski typ II	0.5 kg (8.5%)	79 %	22
Grain	Strzegom Karmel 30	2 kg (33.9%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	25 g	60 min	11.7 %
Boil	Centennial	25 g	60 min	9.4 %
Whirlpool	Mosaic	25 g	0 min	10 %
Dry Hop	Mosaic	25 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	20 g	---