

APA

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **37**
- SRM **7.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

Steps

- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **25 min**
- Temp **80 C**, Time **0 min**

Mash step by step

- Heat up **8.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **25 min** at **64C**
- Keep mash **25 min** at **72C**
- Keep mash **0 min** at **80C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.6 kg (64%)	80 %	5
Grain	Monachijski	0.5 kg (20%)	80 %	16
Grain	Strzegom Karmel 150	0.2 kg (8%)	75 %	150
Grain	płatki jęczmienne	0.2 kg (8%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	6 %
Boil	Citra	5 g	30 min	12 %
Boil	Citra	5 g	15 min	12 %
Boil	Citra	5 g	10 min	12 %
Boil	Citra	5 g	5 min	12 %
Dry Hop	Cascade	10 g	4 day(s)	6 %
Dry Hop	Cascade	10 g	2 day(s)	6 %

Yeasts

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