

APA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **36**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (66.7%)	80 %	5
Grain	Pszeniczny	0.5 kg (16.7%)	85 %	4
Grain	Monachijski	0.5 kg (16.7%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	8 g	60 min	12.3 %
Boil	Chinook	12 g	10 min	12.8 %
Boil	Cascade	20 g	10 min	6.9 %
Dry Hop	Chinook	25 g	3 day(s)	12.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Culture	1 g	aaa