

APA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **38**
- SRM **7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **66 C**, Time **30 min**
- Temp **70 C**, Time **10 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **30 min** at **66C**
- Keep mash **10 min** at **70C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.7 kg (87.1%)	80 %	5
Grain	Pszeniczny	0.2 kg (4.7%)	85 %	4
Grain	Abbey Castle	0.3 kg (7.1%)	80 %	45
Grain	Special B Malt	0.05 kg (1.2%)	65.2 %	315

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.7 %
Whirlpool	Cascade	10 g	10 min	6 %
Boil	Magnum	3 g	60 min	10.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis