

APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **42**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (28.6%)	80 %	5
Grain	Viking Wheat Malt	2 kg (28.6%)	83 %	5
Grain	Viking Pilsner malt	3 kg (42.9%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	30 g	55 min	10 %
Boil	Centennial	15 g	15 min	10 %
Boil	Cascade	15 g	15 min	6.8 %
Dry Hop	Cascade	15 g	3 day(s)	6.8 %
Dry Hop	Centennial	15 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	safale