

APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **23**
- SRM **3.2**

Batch size

- Expected quantity of finished beer **200 liter(s)**
- Trub loss **0 %**
- Size with trub loss **200 liter(s)**
- Boil time **60 min**
- Evaporation rate **1 %/h**
- Boil size **222.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **83.8 liter(s)**
- Total mash volume **117.3 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **83.8 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **171.9 liter(s)** of **76C** water or to achieve **222.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	33.5 kg (100%)	100 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	100 g	60 min	12 %
Boil	Citra	100 g	20 min	12 %
Aroma (end of boil)	Citra	100 g	0 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Safale