

Classic

- Gravity **12.1 BLG**
- ABV ---
- IBU **39**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **2 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (50%)	82 %	4
Grain	Viking Pale Ale malt	2 kg (33.3%)	80 %	5
Grain	Viking Wheat Malt	1 kg (16.7%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	20 g	60 min	9.4 %
Boil	citra	20 g	30 min	12.5 %
Boil	mosaic	20 g	5 min	13.2 %
Aroma (end of boil)	Centennial	30 g	0 min	9.4 %
Aroma (end of boil)	citra	30 g	0 min	12.5 %
Aroma (end of boil)	mosaic	30 g	0 min	13.2 %
Dry Hop	simcoe	100 g	3 day(s)	12.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	fermentis