

ABW

- Gravity **24 BLG**
- ABV **11 %**
- IBU **103**
- SRM **8.3**
- Style **American Barleywine**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **4.6 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Viking Munich Malt	1 kg (16.7%)	78 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	17.1 %
Aroma (end of boil)	Citra	25 g	5 min	13.7 %
Dry Hop	Citra	75 g	4 day(s)	13.7 %

Yeasts

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