

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **47**
- SRM **7.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **46 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **66.1 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5.4 liter(s) / kg**
- Mash size **71 liter(s)**
- Total mash volume **84.2 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **71 liter(s)** of strike water to **73.5C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **66.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	10 kg (74.3%)	82 %	4
Adjunct	Rice Hulls	0.3 kg (2.2%)	1 %	0
Grain	Oats, Flaked	3 kg (22.3%)	80 %	2
Grain	Black Barley (Roast Barley)	0.15 kg (1.1%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	100 g	60 min	10.7 %
Whirlpool	Perle	100 g	15 min	6.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP518 - Opshaug Kveik Ale	Ale	Slant	50 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1 g	Boil	15 min

Notes

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