

GREEN SHAMAN

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **50**
- SRM **4.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **1500 liter(s)**
- Trub loss **5 %**
- Size with trub loss **1575 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **1897.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1185 liter(s)**
- Total mash volume **1580 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **1185 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **1107.5 liter(s)** of **76C** water or to achieve **1897.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	225 kg (51.1%)	82 %	4
Grain	Viking Pale Ale malt	125 kg (28.4%)	80 %	5
Grain	Oats, Flaked	45 kg (10.2%)	80 %	2
Adjunct	Wheat, Flaked	45 kg (10.2%)	77 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	1100 g	40 min	12.3 %
Aroma (end of boil)	Ekuanot	1100 g	40 min	14.2 %
Aroma (end of boil)	Simcoe	1100 g	40 min	13.2 %
Dry Hop	Citra	2600 g	5 day(s)	12.3 %
Dry Hop	Ekuanot	2600 g	5 day(s)	14.2 %
Dry Hop	Simcoe	2600 g	5 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	1000 g	Safale

T-58	Ale	Dry	50 g	Safale
WB-06	Ale	Dry	30 g	Safale

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	300 g	Mash	60 min
Water Agent	Chlorek wapnia 95%	700 g	Mash	60 min
Water Agent	Kwas mlekowy	100 g	Mash	60 min