

**raaaa**

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **47**
- SRM **3.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **85 C**, Time **10 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **85C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (57.1%)	80 %	5
Grain	Oats, Flaked	1 kg (28.6%)	80 %	2
Grain	Barley, Flaked	0.5 kg (14.3%)	70 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	45 min	13 %
Boil	Chinook	5 g	15 min	13 %
Aroma (end of boil)	Chinook	5 g	5 min	13 %
Dry Hop	Equinox	30 g	3 day(s)	13.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	fermentis