

## #41

- Gravity **11.9 BLG**
- ABV ---
- IBU **31**
- SRM **5.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **20.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **18.5 liter(s)**

### Steps

- Temp **67.5 C**, Time **60 min**

### Mash step by step

- Heat up **14.8 liter(s)** of strike water to **73.4C**
- Add grains
- Keep mash **60 min** at **67.5C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.2 kg (86.5%)	80 %	5
Grain	Carahell	0.5 kg (13.5%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	12 g	45 min	11.6 %
Aroma (end of boil)	Marynka	20 g	10 min	10 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Cascade	20 g	5 day(s)	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05 - starter	Ale	Dry	500 g	Fermentis