

Hapa

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **95**
- SRM **3.9**
- Style **American Pale Ale**

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 **15 %/h**
- Boil size **17.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **11.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **9.3 liter(s)** of **76C** water or to achieve **17.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.7 kg (84.4%)	80 %	5
Grain	Rice, Flaked	0.5 kg (15.6%)	70 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	saaz	10 g	60 min	2.98 %
Boil	Oktawia	30 g	60 min	7.1 %
Aroma (end of boil)	Nelson Sauvín	40 g	5 min	11.3 %
Whirlpool	Nelson Sauvín	60 g	20 min	11.3 %
Dry Hop	Nelson Sauvín	100 g	5 day(s)	11.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew American East Coast - New England	Ale	Dry	11 g	---