

Pacific Pale Ale

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **116**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (93.3%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg (6.7%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Waimea	10 g	60 min	17 %
Boil	Simcoe	25 g	60 min	13.2 %
Boil	Simcoe	25 g	40 min	13.2 %
Boil	Simcoe	25 g	20 min	13.2 %
Aroma (end of boil)	Simcoe	25 g	1 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis