

# Pacific Pale Ale

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- 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  |