

# NZ Pale Ale z Homebrewing

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **33**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **22.4 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **70.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (90.9%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.4 kg (9.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pacific Jade 12,4% AA	20 g	60 min	12.4 %
Aroma (end of boil)	Rakau 9,5% AA	20 g	5 min	9.5 %
Dry Hop	Waimea 15,1% AA	40 g	7 day(s)	15.1 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Finning	Whirlfloc	0.5 g	Boil	5 min