NZPA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **32**
- SRM **4.7**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **46.8 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.6 liter(s)**
- Total mash volume **35.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **2 min**

Mash step by step

- Heat up **26.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **29.1 liter(s)** of **76C** water or to achieve **46.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7.6 kg *(85.8%)*	80 %	5
Grain	Karmelowy Jasny 30EBC	0.76 kg *(8.6%)*	75 %	30
Grain	Płatki pszeniczne	0.5 kg *(5.6%)*	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pacific Jade	38 g	60 min	13 %
Aroma (end of boil)	Rakau (NZ)	38 g	5 min	9.5 %
Dry Hop	Waimea	76 g	3 day(s)	17 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	180.5 ml	Fermentis