

## Experimental

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **89**
- SRM **10.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 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 **3 liter(s) / kg**
- Mash size **4.5 liter(s)**
- Total mash volume **6 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **4.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	Ekstrakt słodowy jasny Bruntal	1.7 kg (34.7%)	80 %	30
Liquid Extract	Ekstrakt słodowy PALE ALE Bruntal	1.7 kg (34.7%)	80 %	35
Grain	Viking Pale Ale Viki	1 kg (20.4%)	80 %	5
Grain	Płatki jęczmienne	0.5 kg (10.2%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	45 min	12.3 %
Boil	Pacific Gem	15 g	30 min	13.9 %
Aroma (end of boil)	Centenial	30 g	55 min	10.7 %
Aroma (end of boil)	Rakau	30 g	55 min	9 %
Dry Hop	Wai-iti	40 g	5 day(s)	1.6 %
Dry Hop	Mosaic	40 g	5 day(s)	12.4 %

### Yeasts

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