

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **22**
- SRM **4.7**
- 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 **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.3 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 (61.5%)	80 %	5
Grain	Pszeniczny	1 kg (15.4%)	85 %	4
Grain	Płatki pszeniczne	0.5 kg (7.7%)	60 %	3
Grain	Viking Pilsner malt	1 kg (15.4%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Azacca	25 g	10 min	12.9 %
Boil	Citra	25 g	10 min	12.9 %
Boil	Azacca	25 g	0 min	12.9 %
Boil	Citra	25 g	0 min	12.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
mangrove jack's M66	Ale	Dry	11 g	---