

juction 25

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **87**
- SRM **4.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **9.9 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2 kg (60.6%)	81 %	6
Grain	Pszeniczny	0.5 kg (15.2%)	85 %	4
Grain	Płatki owsiane	0.4 kg (12.1%)	60 %	3
Grain	Rice, Flaked	0.4 kg (12.1%)	70 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Ella (AUS)	15 g	60 min	14.6 %
Boil	Ella (AUS)	10 g	30 min	14.6 %
Aroma (end of boil)	Ella (AUS)	10 g	0 min	14.6 %
Whirlpool	Ella (AUS)	35 g	30 min	14.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
mangrove jacks M66	Ale	Dry	10 g	Mangrove Jack's