

4. Waimea IPA Single Hop

- Gravity **15.9 BLG**
- ABV ---
- IBU **65**
- SRM **9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.22 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **29.5 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **57C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (28.6%)	80 %	4
Grain	Strzegom Pale Ale	3 kg (42.9%)	79 %	6
Grain	Słód Pszeniczny	1 kg (14.3%)	85 %	4
Grain	Słód Monachijski	0.7 kg (10%)	80 %	25
Grain	Słód melanoidynowy	0.3 kg (4.3%)	75 %	70

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Waimea	30 g	60 min	17.4 %
Boil	Waimea	25 g	15 min	17.4 %
Whirlpool	Waimea	25 g	---	17.4 %
Dry Hop	Waimea	70 g	6 day(s)	17.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's
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Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	6 g	Boil	15 min