

# Mango Milkshake IPA

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **58**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **65 C**, Time **20 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **65C**
- Keep mash **30 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1 kg (16%)	80 %	4
Grain	Strzegom Pale Ale	3 kg (48%)	79 %	6
Grain	Bestmalz Carmel Pils	1 kg (16%)	75 %	5
Grain	bestmalz 3-6 EBC zakwaszający	0.5 kg (8%)	80 %	4
Grain	Płatki owsiane	0.75 kg (12%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Waimea	15 g	60 min	15.3 %
Boil	Mosaic	15 g	60 min	12 %
Boil	Waimea	10 g	30 min	15.3 %
Boil	Mosaic	10 g	30 min	12 %
Aroma (end of boil)	Waimea	25 g	0 min	15.3 %
Aroma (end of boil)	Mosaic	25 g	0 min	12 %

Dry Hop	Cascade	59 g	---	6 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	10 g	---

### Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	500 g	Boil	10 min
Flavor	mango	2000 g	Secondary	5 day(s)
Flavor	wanilia	15 g	Secondary	5 day(s)
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