

# Mango Milkshake IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **56**
- SRM **4.8**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Fawcett - Pale Ale Maris Otter	2.1 kg (60.9%)	80.3 %	6
Grain	Bestmalz - Pszeniczny	0.3 kg (8.7%)	82 %	4.5
Grain	Strzegom - Żytni	0.2 kg (5.8%)	81 %	9
Grain	Bestmalz - Carapils	0.15 kg (4.3%)	75 %	5
Grain	Acid Malt	0.15 kg (4.3%)	--- %	4.5
Grain	Płatki owsiane	0.2 kg (5.8%)	85 %	3
Grain	Płatki pszeniczne	0.1 kg (2.9%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.25 kg (7.2%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	25 g	60 min	13.1 %
Aroma (end of boil)	Amarillo	10 g	0 min	8.7 %
Aroma (end of boil)	Galaxy	10 g	0 min	14.5 %
Whirlpool	Amarillo	15 g	0 min	8.7 %
Whirlpool	Galaxy	15 g	0 min	14.5 %

Dry Hop	Amarillo	15 g	3 day(s)	8.7 %
Dry Hop	Galaxy	15 g	3 day(s)	14.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM55 Zielone Wzgórze	Ale	Slant	150 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Flavor	Pulpa z mango	1000 g	Secondary	7 day(s)