

# Mango Milkshake IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **32**
- SRM **4.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **36.5 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **24.9 liter(s)**
- Total mash volume **32.5 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **24.9 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **36.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (74.5%)	80 %	5
Grain	Pszeniczny	0.5 kg (6.2%)	85 %	4
Grain	Oats, Flaked	0.8 kg (9.9%)	80 %	2
Grain	Weyermann - Carapils	0.25 kg (3.1%)	78 %	4
Sugar	Milk Sugar (Lactose)	0.5 kg (6.2%)	76.1 %	0
Sugar	Brown Sugar, Light	0 kg	100 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	16 g	80 min	12.5 %
First Wort	Mosaic	23 g	80 min	10 %
Whirlpool	Mosaic	40 g	30 min	10 %
Whirlpool	Centennial	25 g	30 min	9.7 %
Whirlpool	Simcoe	25 g	30 min	13.2 %
Dry Hop	Mosaic	35 g	7 day(s)	10 %
Dry Hop	Palisade	25 g	7 day(s)	7.5 %
Dry Hop	Simcoe	25 g	7 day(s)	13.2 %

Dry Hop	Sorachi Ace	25 g	7 day(s)	12.8 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Vermont Ale	Ale	Liquid	0.15 ml	Yeast Bay

### Extras

Type	Name	Amount	Use for	Time
Flavor	Mango puree	850 g	Secondary	7 day(s)

### Notes

- Modyfikacja wody RO: 2XCGNZK  
Ca+2Mg+2Na+ Cl- SO4-2  
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