

# Mango milkshake IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **65**
- SRM **4.3**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **75C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (73.3%)	80 %	5
Grain	Płatki owsiane	0.6 kg (8.8%)	85 %	3
Grain	Płatki pszeniczne	0.6 kg (8.8%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.625 kg (9.2%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Aroma (end of boil)	Citra	15 g	10 min	12 %
Aroma (end of boil)	Mosaic	10 g	10 min	10 %
Whirlpool	Equinox	30 g	20 min	13.1 %
Whirlpool	Mosaic	20 g	20 min	10 %
Dry Hop	Citra	40 g	4 day(s)	12 %
Dry Hop	Mosaic	30 g	4 day(s)	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	Pulpa z mango bez dodatku cukru 3 puszki	2350 g	Secondary	14 day(s)

## Notes

- Chmielenie oznaczone jako Whirlpool to tak naprawdę Hop Stand - schłodzenie brzeczki do 75C i przetrzymanie chmielu ( mieszając ) przez 20 minut. Następnie schłodzenie do temperatury zadania drożdży.  
Goryczka sumarycznie wyjdzie 7-8 IBU mniej niż podaje kalkulator.  
*Apr 22, 2020, 2:40 PM*