

# mango milkshake ipa

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **29**
- SRM **4.5**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.7 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **21.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **21.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	0.5 kg (9.6%)	81 %	5
Grain	Maris Otter Crisp	0.8 kg (15.4%)	83 %	3
Grain	Weyermann - Pale Ale Malt	1.5 kg (28.8%)	85 %	7
Grain	Płatki pszeniczne	1 kg (19.2%)	85 %	3
Grain	Pszeniczny	1 kg (19.2%)	85 %	4
Grain	Weyermann - Acidulated Malt	0.4 kg (7.7%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Enigma (AUS)	30 g	10 min	17.2 %
Aroma (end of boil)	Vic Secret	20 g	5 min	19 %
Whirlpool	Enigma (AUS)	30 g	0 min	17.2 %
Whirlpool	Vic Secret	30 g	0 min	16.3 %
Dry Hop	Enigma (AUS)	40 g	4 day(s)	17.2 %
Dry Hop	Vic Secret	50 g	3 day(s)	16.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM55 Zielone Wzgórze	Ale	Liquid	30 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Other	laktoza	500 g	Boil	10 min

### Notes

- 2,5 kg pulpy z mango na cichą  
*Dec 2, 2019, 11:16 AM*