

# Milkshake Mango IPA 1.5kg mango i laktoza Australia/New Zeland

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **12**
- SRM **4.3**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **44.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **42 liter(s)**

## Steps

- Temp **48 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **31.5 liter(s)** of strike water to **52.7C**
- Add grains
- Keep mash **20 min** at **48C**
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **23.3 liter(s)** of **76C** water or to achieve **44.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (47.6%)	80 %	5
Grain	Płatki owsiane	1 kg (9.5%)	85 %	3
Grain	Płatki pszeniczne	1 kg (9.5%)	85 %	3
Grain	Pilzneński	3.5 kg (33.3%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Wai-iti	100 g	50 min	2.2 %
Dry Hop	Wai-iti	100 g	7 day(s)	2.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
m66	Ale	Dry	21 g	mangrove jack
FM55 Zielone Wzgórze	Ale	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	500 g	Boil	10 min
Flavor	Mango	2400 g	Secondary	7 day(s)