

# Mango Milkshake IPA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **50**
- SRM **3.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **77 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **52 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **39 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **51 liter(s)** of **76C** water or to achieve **77 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	12 kg (92.3%)	81 %	4
Grain	Żytni	1 kg (7.7%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	60 g	60 min	14.6 %
Boil	Columbus/Tomahawk/Zeus	40 g	30 min	14.6 %
Dry Hop	Mosaic	50 g	7 day(s)	10 %
Dry Hop	Simcoe	100 g	7 day(s)	13.2 %
Dry Hop	Citra	100 g	7 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	20.63 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	Mango puree	4500 g	Secondary	7 day(s)