

# Milshake Mango IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **58**
- SRM **4.4**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23.8 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **69.9C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **10 min** at **75C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (63.5%)	80 %	5
Grain	Płatki pszeniczne	0.8 kg (12.7%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.5 kg (7.9%)	76.1 %	0
Grain	Viking Pilsner malt	1 kg (15.9%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	10 min	15.5 %
Boil	ekuanot	60 g	10 min	14.1 %
Boil	Cascade	15 g	50 min	6.8 %
Boil	Cascade	15 g	10 min	6.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	15 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	Purre z mango	1000 g	Secondary	7 day(s)

## Notes

- 15 litrów wody do wysładzania na temp 80 stopni.  
do filtrowania użyłem 100 g łuski ryżowej moczonej w ciepłej wodzie przez 10minut. Dodane przed zacierem na dno kadzi filtracyjnej.  
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