

# Mango Sour IPA - Mash-hopping

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **64**
- SRM **5.9**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **15 %**
- Size with trub loss **14.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.6 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.9 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **13.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **18.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (63.4%)	82 %	4
Grain	Viking Vienna Malt	1 kg (21.1%)	79 %	7
Grain	Karmelowy Jasny 30EBC	0.48 kg (10.1%)	75 %	30
<> carapils				
Sugar	Milk Sugar (Lactose)	0.25 kg (5.3%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Lublin (Lubelski)	70 g	90 min	4 %
Zbiór 2022				
Boil	Lublin (Lubelski)	88 g	20 min	4 %
2023				
Boil	Lublin (Lubelski)	88 g	10 min	4 %
2023				
Aroma (end of boil)	lunga	25 g	10 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
k-97	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Pulpa mango	1350 g	Secondary	10 day(s)
Flavor	sok cytrynowy nfc	1000 g	Secondary	10 day(s)
Water Agent	chlorek wapnia	4 g	Mash	90 min
Fining	whirlfloc	1 g	Boil	5 min
Flavor	Laktoza	0.25 g	Secondary	0 day(s)

## Notes

- BIAB  
mash-hopping  
Domowa mokra mrożona szyszka  
5ml kwasu f.  
*Nov 22, 2023, 8:08 PM*