

## MM sour ale

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **23**
- SRM **3.7**

### Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **35.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **66 C**, Time **70 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **75C**
- Sparge using **25.4 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (76.2%)	82 %	4
Grain	Viking Wheat Malt	1 kg (19%)	83 %	5
Grain	Karmelowy Jasny 30EBC	0.25 kg (4.8%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	60 min	13 %
Whirlpool	Mosaic	100 g	0 min	10 %
80*C 20min				
Dry Hop	Citra	100 g	3 day(s)	12 %
Dry Hop	Amarillo	100 g	3 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	---

### Extras

Type	Name	Amount	Use for	Time
Flavor	Puree mango	1000 g	Secondary	9 day(s)

Flavor	Puree marakuja	1000 g	Secondary	9 day(s)
Water Agent	kwas mlekowy	50 g	Bottling	---