

Sour Ale Mango

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **10**
- SRM **3.8**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (54.5%)	81 %	4
Grain	Pszeniczny	1 kg (18.2%)	85 %	4
Grain	Weyermann - Pale Ale Malt	0.5 kg (9.1%)	85 %	7
Grain	Płatki owsiane	0.5 kg (9.1%)	85 %	3
Grain	Płatki pszeniczne	0.5 kg (9.1%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Mosaic	50 g	5 min	10 %
Dry Hop	Citra	50 g	20 day(s)	12 %
Dry Hop	Azacca	50 g	5 day(s)	14 %
Dry Hop	Amarillo	50 g	3 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Other	Lactobacilus	10 g	Primary	2 day(s)
Other	mango	2000 g	Secondary	5 day(s)