

# TONKA MILK STOUT

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **27**
- SRM **38.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **27.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **27.4 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (49.2%)	85 %	7
Grain	Monachijski typ II 20-25 EBC Weyermann	1.5 kg (24.6%)	80 %	20
Grain	Płatki owsiane	0.5 kg (8.2%)	85 %	3
Grain	Pszeniczny	0.3 kg (4.9%)	85 %	4
Grain	Carafa III	0.3 kg (4.9%)	70 %	1034
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (4.9%)	73 %	1001
Grain	Jęczmień palony	0.2 kg (3.3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	20 g	60 min	13.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM54 Gorączka kalifornijska	Ale	Liquid	1000 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Flavor	zest z pomarańczy	20 g	Boil	10 min
Flavor	tonka	25 g	Secondary	10 day(s)
Fining	whirlfloc	1 g	Boil	10 min
Other	laktoza	500 g	Boil	5 min