

# milk stout

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- Gravity **17.3 BLG**
- ABV ---
- IBU **42**
- SRM **35.2**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **0 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **19.9 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **74.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	3 kg (43.8%)	80 %	6
Grain	Briess - Pilsen Malt	0.5 kg (7.3%)	80.5 %	2
Grain	Biscuit Malt	0.45 kg (6.6%)	79 %	45
Grain	Oats, Flaked	0.5 kg (7.3%)	80 %	2
Grain	Briess - Wheat Malt, White	0.5 kg (7.3%)	85 %	5
Grain	Carafa II	0.55 kg (8%)	70 %	812
Grain	Roasted Barley	0.35 kg (5.1%)	55 %	591
Sugar	Milk Sugar (Lactose)	1 kg (14.6%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	30 g	30 min	10 %
Boil	Simcoe	30 g	5 min	13.2 %
Boil	Mosaic	30 g	5 min	10 %
Boil	Citra	30 g	5 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Notes

- laktoza 5 min gotowania  
*Feb 21, 2017, 2:28 PM*