

## milk stout

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **23**
- SRM **37.1**

### Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **0.1 %**
- Size with trub loss **9 liter(s)**
- Boil time **1 min**
- Evaporation rate **1 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.2 liter(s)**
- Total mash volume **12.2 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **9.2 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	0.75 kg (22.1%)	82 %	4
Grain	Viking Wheat Malt	0.45 kg (13.2%)	83 %	5
Grain	Platki owsiane	0.4 kg (11.8%)	85 %	3
Grain	Weyermann - Melanoiden Malt	0.1 kg (2.9%)	81 %	70
Grain	Viking Munich Malt	0.8 kg (23.5%)	78 %	16
Grain	Caraaroma	0.2 kg (5.9%)	78 %	350
Sugar	Milk Sugar (Lactose)	0.35 kg (10.3%)	76.1 %	0
Grain	Simpsons - Black Malt	0.15 kg (4.4%)	70 %	1084
Grain	Simpsons - Chocolate Malt	0.15 kg (4.4%)	73 %	788
Grain	Carafa II	0.05 kg (1.5%)	70 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	East Kent Goldings	22 g	60 min	4.7 %
Aroma (end of boil)	East Kent Goldings	10 g	15 min	5.1 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Safale S-04	Ale	Dry	11 g	Safale