

## Milk stout

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **41**
- SRM **36.4**
- 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 **100 min**
- Evaporation rate **20 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **20.3 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (46.2%)	80 %	5
Grain	Płatki owsiane	1 kg (15.4%)	60 %	3
Grain	Abbey Castle	0.15 kg (2.3%)	80 %	45
Grain	Weyermann - Dehusked Carafo III	0.4 kg (6.2%)	70 %	1400
Grain	Monachijski	0.8 kg (12.3%)	80 %	16
Grain	Special B Castle	0.15 kg (2.3%)	70 %	350
Grain	Strzegom Czekoladowy jasny	0.15 kg (2.3%)	68 %	400
Grain	Brown Malt (British Chocolate)	0.15 kg (2.3%)	70 %	400
Sugar	Milk Sugar (Lactose)	0.7 kg (10.8%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	43 g	60 min	3.5 %
Boil	East Kent Goldings	17 g	60 min	4.6 %
Boil	Simcoe	15 g	60 min	11.2 %
Whirlpool	Simcoe	35 g	1 min	11.2 %

Whirlpool	Styrian Wolf	30 g	1 min	13.8 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Kreda	6 g	Mash	90 min
Water Agent	Kwas mlekowy	2 g	Mash	15 min

### Notes

- Laktoza dodana 10 min przed końcem gotowania.  
*Nov 7, 2023, 6:31 PM*