

Milkstout

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **25**
- SRM **28.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **62 C**, Time **10 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **10 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (63.8%)	80 %	7
Grain	Weyermann - Pilsner Malt	0.5 kg (10.6%)	81 %	5
Grain	Caramunich® typ I	0.35 kg (7.4%)	73 %	80
Grain	Carafa II	0.15 kg (3.2%)	70 %	812
Grain	Jęczmień palony	0.3 kg (6.4%)	55 %	985
Grain	Płatki owsiane	0.4 kg (8.5%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	15 g	60 min	4 %
Boil	Marynka	15 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Dry	10 g	Safale
-------------	-----	-----	------	--------

Extras

Type	Name	Amount	Use for	Time
Other	laktoza	350 g	Boil	15 min