

Milk Stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **29**
- SRM **41**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.7 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **11 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.5 kg (63.9%)	81 %	6
Grain	Weyermann Spezial W	0.5 kg (12.8%)	68 %	300
Grain	Płatki owsiane	0.2 kg (5.1%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (5.1%)	73 %	1001
Grain	Fawcett - Pale Chocolate	0.2 kg (5.1%)	71 %	600
Sugar	Milk Sugar (Lactose)	0.25 kg (6.4%)	76.1 %	0
Grain	Jęczmień palony	0.063 kg (1.6%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga PH 2019	20 g	30 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale

Extras

Type	Name	Amount	Use for	Time
Water Agent	kreda	8 g	Mash	60 min
Water Agent	chlorek wapnia	2 g	Mash	60 min
Water Agent	gips	1 g	Mash	60 min