

Milk Stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **27**
- SRM **31.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (82.5%)	75 %	7
Grain	Karmelowy Jasny 30EBC	0.3 kg (6.2%)	75 %	30
Grain	Jęczmień palony	0.3 kg (6.2%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.25 kg (5.2%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	30 g	60 min	6.1 %
Boil	El Dorado	10 g	10 min	13.2 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Flavor	laktoza	500 g	Boil	60 min
--------	---------	-------	------	--------