

Swarożyc - Milk Stout

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **29**
- SRM **29.6**
- 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 **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting Pilszeński	4.1 kg (64.5%)	80 %	3
Grain	Strzegom Karmel 30	0.22 kg (3.5%)	75 %	30
Grain	Weyermann Caramunich 3	0.23 kg (3.6%)	76 %	150
Grain	Briess - Chocolate Malt	0.23 kg (3.6%)	60 %	690
Grain	Bestmalz - Special X	0.28 kg (4.4%)	75 %	600
Grain	Extra black	0.13 kg (2%)	65 %	1400
Grain	Płatki pszeniczne	0.47 kg (7.4%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.7 kg (11%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

Yeasts

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

WLP090 - San Diego Super Yeast	Ale	Liquid	400 ml	White Labs
--------------------------------	-----	--------	--------	------------

Extras

Type	Name	Amount	Use for	Time
Spice	Wanilia	3 g	Secondary	14 day(s)
Flavor	Łuska kakaowa	150 g	Secondary	14 day(s)