

## milk stout

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- Gravity **15 BLG**
- ABV ---
- IBU **25**
- SRM **42.2**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **14.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Karmel 150	0.3 kg (5.6%)	75 %	150
Grain	Strzegom Karmel 600	0.1 kg (1.9%)	68 %	601
Grain	Strzegom Czekoladowy jasny	0.2 kg (3.7%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.7%)	68 %	1200
Grain	Jęczmień palony	0.1 kg (1.9%)	55 %	985
Grain	Płatki owsiane	0.3 kg (5.6%)	85 %	3
Grain	Viking Pilsner malt	2 kg (37%)	82 %	4
Grain	Viking Pale Ale malt	1.2 kg (22.2%)	80 %	5
Grain	Strzegom Pszeniczny	0.5 kg (9.3%)	81 %	6
Sugar	Milk Sugar (Lactose)	0.5 kg (9.3%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	13 g	60 min	17 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis

## Notes

- 22litry  
burzliwa 10 dni - 15 blg - 6 blg  
cicha 10 dni 6 blg  
zabutelkowano 19.11.16  
dodano 140 g cukru - 3,2g na 0,5l  
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