

## Milk stout

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **35.7**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **3 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **55 C**, Time **15 min**
- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (75%)	95 %	5.5
Grain	Jęczmień palony	0.5 kg (8.3%)	55 %	1150
Grain	Karmelowy ciemny	0.2 kg (3.3%)	75 %	170
Grain	Strzegom Czekoladowy ciemny	0.15 kg (2.5%)	68 %	1200
Grain	- Pszeniczny Czekoladowy	0.15 kg (2.5%)	73 %	1100
Grain	Płatki owsiane	0.5 kg (8.3%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	7.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	0.5 g	Boil	60 min