

# milk stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **18.4**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **21.9 liter(s)** of **76C** water or to achieve **36.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (70.4%)	82 %	4
Grain	Viking Munich Malt	1 kg (14.1%)	78 %	18
Grain	Płatki owsiane	0.5 kg (7%)	85 %	3
Grain	Strzegom Czekoladowy jasny	0.4 kg (5.6%)	68 %	400
Grain	Jęczmień palony	0.2 kg (2.8%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	10 %
Aroma (end of boil)	Willamette	10 g	20 min	5 %
Aroma (end of boil)	Willamette	10 g	5 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale

## Extras

Type	Name	Amount	Use for	Time
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Flavor	laktoza	0.5 g	Boil	20 min
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