

# Milk Stout

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **35**
- SRM **28.1**

## 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (76.2%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg (5.7%)	75 %	30
Grain	Jęczmień palony	0.3 kg (5.7%)	55 %	985
Grain	Czekoladowy	0.25 kg (4.8%)	60 %	788
Grain	Płatki owsiane	0.2 kg (3.8%)	85 %	3
Grain	Pszeniczny	0.2 kg (3.8%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	50 min	10 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
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Flavor	laktoza	500 g	Boil	15 min
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## Notes

- warzenie 12,03,18  
butelka 05,03,18 bez cichej + 110g glukozy  
*Apr 5, 2018, 7:59 PM*