

# milk stout

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **26**
- SRM **35.7**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.4 kg (39.3%)	80 %	4
Grain	Viking Pale Ale malt	2.4 kg (39.3%)	80 %	5
Sugar	laktoza	0.4 kg (6.6%)	88 %	1
Grain	Carafa II	0.3 kg (4.9%)	70 %	812
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.6%)	68 %	1200
Grain	Caraaroma	0.1 kg (1.6%)	78 %	400
Grain	Jęczmień palony	0.4 kg (6.6%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Nugget	20 g	10 min	15.3 %
Boil	Magnat	15 g	60 min	11.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Spice	wanilia laska	4 g	Secondary	2 day(s)
Other	płatki owsiane	200 g	Mash	60 min