

# Milk Stout

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **32**
- SRM **39.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

## Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **9.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg (61.5%)	79 %	6
Grain	Caramel/Crystal Malt - 10L	0.25 kg (7.7%)	75 %	160
Grain	Karmelowy Jasny 30EBC	0.35 kg (10.8%)	75 %	30
Grain	Płatki owsiane	0.25 kg (7.7%)	85 %	3
Grain	Black, Castlemalting	0.15 kg (4.6%)	70 %	1350
Grain	Jęczmień palony	0.25 kg (7.7%)	55 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	12.5 g	60 min	4 %
Boil	Pacific Gem	10 g	40 min	15.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	6 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	2.5 g	Boil	15 min
Flavor	Laktoza	400 g	Boil	40 min