

# milk stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **27**
- SRM **33.7**
- Style **Sweet Stout**

## 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 **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (40.8%)	82 %	4
Grain	Strzegom Monachijski typ I	2 kg (40.8%)	79 %	16
Grain	Strzegom Czekoladowy jasny	0.25 kg (5.1%)	68 %	400
Grain	Strzegom Karmel 600	0.25 kg (5.1%)	68 %	601
Grain	Jęczmień palony	0.4 kg (8.2%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us 04	Ale	Dry	10 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	500 g	Boil	10 min