

# Milk Stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **36**
- SRM **32**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.3 kg (39.7%)	80 %	4
Grain	Strzegom Monachijski typ I	2.2 kg (37.9%)	79 %	16
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.4%)	68 %	1200
Grain	Karmelowy Ciemny	0.4 kg (6.9%)	75 %	120
Grain	Strzegom Barwiący	0.3 kg (5.2%)	68 %	1300
Grain	Płatki owsiane błyskawiczne	0.4 kg (6.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	45 g	90 min	7.8 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Other	laktoza	0.5 g	Boil	10 min