

# Milk Chocolate Stout

- Gravity **15.4 BLG**
- ABV ---
- IBU **32**
- SRM **37.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.9 kg (33.9%)	79 %	6
Grain	Strzegom Pilzneński	1 kg (17.9%)	80 %	4
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (4.5%)	73 %	1001
Grain	Oats, Flaked	0.2 kg (3.6%)	80 %	2
Dry Extract	Milk Sugar (Lactose)	1 kg (17.9%)	76.1 %	0
Grain	Żytni	1 kg (17.9%)	85 %	8
Grain	Jęczmień palony	0.25 kg (4.5%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	Safale