

# Milk Stout Czekoladowy

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **13**
- SRM **33.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (72.5%)	80 %	5
Grain	Caramunich® typ I	0.8 kg (11.6%)	73 %	80
Grain	Carafa II	0.1 kg (1.4%)	70 %	812
Sugar	Milk Sugar (Lactose)	0.5 kg (7.2%)	76.1 %	0
Grain	Strzegom Czekoladowy ciemny	0.5 kg (7.2%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	60 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis