

# Milk Stout z kakao

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **24**
- SRM **49.1**
- 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (55.6%)	79 %	6
Grain	Pilzneński	1 kg (18.5%)	81 %	4
Grain	Jęczmień palony	0.3 kg (5.6%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.4 kg (7.4%)	68 %	1200
Grain	Strzegom Barwiący	0.3 kg (5.6%)	68 %	1300
Grain	Płatki owsiane	0.4 kg (7.4%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	40 g	60 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Ziarna kakaowca	70 g	Boil	15 min

Flavor	Laktoza	500 g	Boil	1 min
--------	---------	-------	------	-------

## Notes

- Ciemne w 50 min.  
*Aug 23, 2019, 6:45 PM*