

# Milk Stout

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **30**
- SRM **31.7**
- 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 **4 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **24.5 liter(s)**

## Steps

- Temp **68 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **75 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	2.7 kg (50%)	80 %	8
Grain	castle munich II	1 kg (18.5%)	79 %	22
Grain	Oats, Flaked	0.5 kg (9.3%)	80 %	2
Grain	Castle Cafe	0.25 kg (4.6%)	75.5 %	500
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (4.6%)	73 %	1001
Grain	Weyermann - Dehusked Carafa III	0.2 kg (3.7%)	70 %	1024
Sugar	Milk Sugar (Lactose)	0.5 kg (9.3%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	East Kent Goldings	25 g	10 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Prażone ziarna kakaowca	100 g	Secondary	7 day(s)

## Notes

- Laktoza do gotowania  
Carafa bez łuski na wygrzew  
6g sody oczyszczonej do gotowania  
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