

Milk Stout

- Gravity **12.9 BLG**
- ABV ---
- IBU **33**
- SRM **38.1**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **55.4 liter(s)**
- Total mash volume **73.8 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **55.4 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **64.3 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	7.38 kg (36.3%)	80 %	4
Grain	Strzegom Monachijski typ I	7.38 kg (36.3%)	79 %	16
Grain	Strzegom Czekoladowy jasny	0.92 kg (4.5%)	68 %	400
Grain	Strzegom Karmel 600	0.92 kg (4.5%)	68 %	601
Grain	Strzegom Czekoladowy ciemny	1.85 kg (9.1%)	68 %	1200
Sugar	Milk Sugar (Lactose)	1.91 kg (9.4%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	58.46 g	60 min	6.5 %
Boil	Magnum	61.54 g	60 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Slant	761.91 ml	Safale
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Extras

Type	Name	Amount	Use for	Time
Other	laktoza	1.91 g	Boil	10 min