

Milk stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **31**
- SRM **47**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **8.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.6 kg (50.8%)	81 %	4
Grain	Brown Malt (British Chocolate)	0.25 kg (7.9%)	70 %	175
Grain	Pszeniczny	0.2 kg (6.3%)	85 %	4
Grain	red crystal	0.2 kg (6.3%)	70 %	400
Grain	Pszeniczny Czekoladowy	0.15 kg (4.8%)	73 %	1001
Grain	Strzegom Czekoladowy 1200	0.15 kg (4.8%)	68 %	1202
Grain	Weyermann - Carafa I	0.1 kg (3.2%)	70 %	800
Grain	Weyermann - Carafa III	0.1 kg (3.2%)	70 %	1300
Sugar	Milk Sugar (Lactose)	0.4 kg (12.7%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	11.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	80 ml	safeale