

## Milk stout

- Gravity **13.8 BLG**
- ABV ---
- IBU **20**
- SRM **49.8**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **13.8 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **15 min** at **72C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg (66%)	85 %	8
Grain	Weyermann - Carafa III	0.1 kg (2.1%)	70 %	1024
Grain	Roasted Barley	0.3 kg (6.2%)	55 %	799
Grain	Barley, Flaked	0.5 kg (10.3%)	70 %	4
Grain	Strzegom Czekoladowy 1200	0.2 kg (4.1%)	68 %	1202
Grain	Cara Blonde - Castle Malting	0.3 kg (6.2%)	78 %	150
Sugar	Milk Sugar (Lactose)	0.25 kg (5.2%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	55 min	7 %
Boil	Challenger	10 g	10 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Oak Chips	20 g	Secondary	80 day(s)