

## #13 Milk Chocolate Stout

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- Gravity **14 BLG**
- ABV ---
- IBU **20**
- SRM **68.5**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

### Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **15.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.7 kg (46.6%)	80 %	4
Grain	Strzegom Czekoladowy jasny	1 kg (17.2%)	68 %	400
Grain	Carafa III	0.2 kg (3.4%)	70 %	1034
Grain	Strzegom pszenica prażona	0.5 kg (8.6%)	70 %	1000
Grain	weyermann caramunich	0.5 kg (8.6%)	70 %	110
Grain	Oats, Flaked	0.4 kg (6.9%)	80 %	2
Dry Extract	Milk Sugar (Lactose)	0.5 kg (8.6%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	30 g	50 min	5.5 %
Aroma (end of boil)	Sybilla	20 g	10 min	3.5 %