

## #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 %      |