

Milk Chocolate Stout

- Gravity **15.4 BLG**
- ABV ---
- IBU **32**
- SRM **37.3**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------------|----------------------------------------|----------------|--------|------|
| Grain | Strzegom Pale Ale | 1.9 kg (33.9%) | 79 % | 6 |
| Grain | Strzegom Pilzneński | 1 kg (17.9%) | 80 % | 4 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.25 kg (4.5%) | 73 % | 1001 |
| Grain | Oats, Flaked | 0.2 kg (3.6%) | 80 % | 2 |
| Dry Extract | Milk Sugar (Lactose) | 1 kg (17.9%) | 76.1 % | 0 |
| Grain | Żytni | 1 kg (17.9%) | 85 % | 8 |
| Grain | Jęczmień palony | 0.25 kg (4.5%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 100 ml | Safale |