

Chocolate factory

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **27.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 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 **16.7 liter(s)**
- Total mash volume **22.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **16.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|----------------|-------|------|
| Grain | Pilzneński | 4 kg (71.9%) | 81 % | 4 |
| Grain | Strzegom Karmel 30 | 0.22 kg (4%) | 75 % | 30 |
| Grain | Weyermann Caramunich 3 | 0.23 kg (4.1%) | 76 % | 150 |
| Grain | Briess - Chocolate Malt | 0.23 kg (4.1%) | 60 % | 690 |
| Grain | special x | 0.28 kg (5%) | 70 % | 350 |
| Grain | Extra black | 0.13 kg (2.3%) | 65 % | 1400 |
| Grain | Płatki pszeniczne | 0.47 kg (8.5%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|-----------|-----------|
| Flavor | wanilia | 2 g | Secondary | 14 day(s) |
| Flavor | łuska kakaowca | 150 g | Secondary | 14 day(s) |
| Flavor | laktoza | 700 g | Boil | 10 min |