

Czekoladka bez laktozy

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **34.7**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **100 min**
- Evaporation rate **5 %/h**
- Boil size **26.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 2 kg (37%) | 80 % | 5 |
| Grain | Monachijski | 1 kg (18.5%) | 80 % | 16 |
| Grain | Słód owsiany Fawcett | 1 kg (18.5%) | 61 % | 5 |
| Grain | Fawcett - Brown | 0.35 kg (6.5%) | 72 % | 180 |
| Grain | Fawcett - Pale Chocolate | 0.3 kg (5.6%) | 71 % | 600 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.3 kg (5.6%) | 73 % | 1001 |
| Grain | Weyermann - Dehusked Carafa II | 0.2 kg (3.7%) | 70 % | 837 |
| Grain | Strzegom Monachijski typ II | 0.15 kg (2.8%) | 79 % | 22 |
| Grain | Amber Malt | 0.1 kg (1.9%) | 75 % | 43 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 25 g | 60 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------------|-------------|---------------|-------------------|
| Danstar - Nottingham | Ale | Dry | 12.5 g | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------------|---------------|----------------|-------------|
| Water Agent | Lactic Acid | 5 g | Mash | 60 min |
| Water Agent | CaCl ₂ | 5 g | Mash | 60 min |
| Water Agent | NaCl | 5 g | Mash | 60 min |
| Fining | Whirlfloc | 2.5 g | Boil | 10 min |
| Flavor | Łuska kakaowca | 25 g | Secondary | 5 day(s) |