

Porter czekoladowy

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **32**
- SRM **30.4**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **24.4 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.6 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (48.9%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 0.9 kg (9.8%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 0.9 kg (9.8%) | 79 % | 22 |
| Grain | Słód Caramunich Typ II Weyermann | 0.9 kg (9.8%) | 73 % | 120 |
| Grain | Caraaroma | 0.7 kg (7.6%) | 78 % | 400 |
| Grain | Brown Malt (British Chocolate) | 0.3 kg (3.3%) | 70 % | 128 |
| Grain | Płatki owsiane | 0.5 kg (5.4%) | 60 % | 3 |
| Grain | Carafa | 0.1 kg (1.1%) | 70 % | 664 |
| Sugar | Brown Sugar, Light | 0.4 kg (4.3%) | 100 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 30 g | 15 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------|------|--------|------------|
| BrewGO Lager | Lager | Dry | 20 g | Browin |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|-----------|----------|
| Flavor | Kakao kruszone | 200 g | Secondary | 3 day(s) |