

- Gravity **23.6 BLG**
- ABV **10.8 %**
- IBU **35**
- SRM **34.9**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.3 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **23.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **73C**
- Keep mash **2 min** at **78C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|------|
| Grain | Strzegom Monachijski typ I | 2.5 kg (30.4%) | 79 % | 16 |
| Grain | Pilzneński | 1.4 kg (17%) | 81 % | 4 |
| Grain | Carafa II | 0.33 kg (4%) | 70 % | 812 |
| Grain | Płatki owsiane | 0.5 kg (6.1%) | 85 % | 3 |
| Sugar | Brown Sugar, Dark | 0.4 kg (4.9%) | 100 % | 99 |
| Grain | Strzegom Wiedeński | 1.25 kg (15.2%) | 79 % | 10 |
| Grain | Weyermann - Carafa III | 0.2 kg (2.4%) | 70 % | 1024 |
| Grain | Viking Pale Ale malt | 1.45 kg (17.6%) | 80 % | 5 |
| Grain | Weyermann - Carafa I | 0.2 kg (2.4%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 40 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 40 g | 20 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|-------|--------|--------|-------------|
| Wyeast - Bohemian Lager | Lager | Liquid | 400 ml | Wyeast Labs |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------|--------|---------|--------|
| Water Agent | kwask mlekowy | 15 g | Mash | --- |
| Other | łuska ryżowa | 200 g | Mash | 10 min |