

Porter

- Gravity **21.1 BLG**
- ABV **9.4 %**
- IBU **29**
- SRM **31.5**
- 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 **120 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **30.8 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (56.8%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 0.9 kg (10.2%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 0.9 kg (10.2%) | 79 % | 22 |
| Grain | Słód Caramunich Typ II Weyermann | 0.9 kg (10.2%) | 73 % | 120 |
| Grain | Caraaroma | 0.7 kg (8%) | 78 % | 400 |
| Grain | Brown Malt (British Chocolate) | 0.3 kg (3.4%) | 70 % | 128 |
| Grain | Strzegom Barwiący | 0.1 kg (1.1%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 30 g | 20 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------------------|-------|-------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Slant | 340 ml | Fermentum Mobile |
|-------------------------|-------|-------|--------|------------------|