

Borter Pałtycki 4

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **36**
- SRM **30.3**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **53 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **27.7 liter(s)**

Steps

- Temp **63 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **21.5 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **35 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **1.3 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|--------------------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński | 3 kg (45.1%) | 79 % | 10 |
| Grain | Słód owsiany viking malt | 1 kg (15%) | 61 % | 5 |
| Grain | red ale viking malt | 0.5 kg (7.5%) | 75 % | 70 |
| Grain | Weyermann Specjal W | 0.5 kg (7.5%) | 68 % | 280 |
| Grain | Viking Pale Ale malt | 1 kg (15%) | 80 % | 5 |
| Grain | Weyermann - Chocolate Wheat | 0.15 kg (2.3%) | 74 % | 788 |
| Liquid Extract | Bruntal ekstrakt słodowy jasny | 0.5 kg (7.5%) | 81 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------|--------|--------|------------|
| Boil | lunga | 20 g | 60 min | 12.6 % |
| Aroma (end of boil) | saaz | 20 g | 5 min | 2.98 % |

Yeasts

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

| | | | | |
|-----------|-------|-------|--------|-----|
| novalager | Lager | Slant | 400 ml | --- |
|-----------|-------|-------|--------|-----|