

## 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
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novalager	Lager	Slant	400 ml	---
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