

## Porter Bałtycki 4

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- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **40**
- SRM **25.2**
- 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 **12 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **30.8 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **65 C**, Time **50 min**
- Temp **75 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **22.2 liter(s)** of strike water to **61.7C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **75C**
- Keep mash **5 min** at **77C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2.5 kg (29.2%)	79 %	10
Grain	Strzegom Monachijski typ I	2.5 kg (29.2%)	79 %	16
Grain	Pilzneński	1.5 kg (17.5%)	81 %	4
Grain	Viking Pale Ale malt	1.2 kg (14%)	80 %	5
Grain	Black (Patent) Malt	0.25 kg (2.9%)	55 %	1350
Grain	Biscuit Malt	0.2 kg (2.3%)	79 %	45
Grain	Aroma CastleMalting	0.2 kg (2.3%)	78 %	100
Grain	Caramel/Crystal Malt - 40L	0.2 kg (2.3%)	74 %	79

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybillia	40 g	60 min	7 %
Boil	Marynka	30 g	30 min	8 %
Boil	sybila	25 g	10 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
lallemand lager	Lager	Slant	350 ml	lallemand