

## Porter Bałtycki #4

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- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **46**
- SRM **31.7**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.4 liter(s)**

### Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **20.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **45 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **19.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann Pilsner Malt	2.6 kg (37.4%)	80.5 %	3.5
Grain	Weyermann Vienna Malt	1.6 kg (23%)	79 %	7.5
Grain	Weyermann Munich II Malt	1.6 kg (23%)	78 %	22.5
Grain	Weyermann Caramunich II Malt	0.2 kg (2.9%)	73 %	120
Grain	Weyermann Caraaroma Malt	0.2 kg (2.9%)	74 %	400
Grain	Weyermann Chocolate Wheat Malt	0.2 kg (2.9%)	65 %	1050
Grain	Castle Malting Chateau Caffe Light Malt	0.2 kg (2.9%)	77 %	250
Grain	Rye Flakes	0.3 kg (4.3%)	80 %	3.75
Grain	Viking Malt Roasted Barley	0.05 kg (0.7%)	63 %	1050

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum PL 2023	41 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	500 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Other	Rice Husk	100 g	Mash	---
Fining	Whirlfloc T	1.25 g	Boil	10 min