

## Porter Bałtycki z winem #4 - Browar na Wyżynie

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **29**
- SRM **51**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **7 %**
- Size with trub loss **15 liter(s)**
- Boil time **120 min**
- Evaporation rate **18 %/h**
- Boil size **20.4 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **29.8 liter(s)**

### Steps

- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **21.3 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **30 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.6 liter(s)** of **76C** water or to achieve **20.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	monachijski typ I Viking Malt	2.5 kg (29.4%)	78 %	16
Grain	wiedeński Viking Malt	3 kg (35.3%)	79 %	9
Grain	cookie (bursztynowy) Viking Malt	1 kg (11.8%)	72 %	70
Grain	Karmelowy żytni Viking Malt	0.5 kg (5.9%)	75 %	150
Grain	Château Special B Castle Malting	0.5 kg (5.9%)	77 %	300
Grain	Carafa® Special I Malt Weyermann®	0.5 kg (5.9%)	1 %	900
Grain	płatki owsiane	0.5 kg (5.9%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka (Polishhops) - granulat	20 g	90 min	7.7 %

Boil	Marynka (Polishhops) - granulat	20 g	15 min	7.7 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	200 ml	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	chlorek wapnia	5 g	Mash	60 min
Water Agent	gips	2 g	Mash	60 min
Water Agent	kreda	10 g	Mash	60 min
Water Agent	Kwas fosforowy 75% (zacier)	10 g	Mash	60 min
Water Agent	Kwas fosforowy 75% (wystadzanie)	2 g	Mash	60 min
Fining	Mech irlandzki	2 g	Boil	15 min
Flavor	Macerat	50 g	Secondary	28 day(s)

## Notes

- Słody ciemne dodane na ostatnie 15 minut zacierania.  
Mash pH \*: 5.52  
<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=VB2DQ6M>

Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
123.6 0.0 131.0 96.8 63.0 196.629  
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