

Czarny Bałtyk

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **27**
- SRM **28.3**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **34.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33.6 liter(s)**
- Total mash volume **44.8 liter(s)**

Steps

- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **33.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **35 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	4.1 kg (36.6%)	79 %	10
Grain	Strzegom Monachijski typ I	3.5 kg (31.3%)	79 %	16
Grain	Strzegom Monachijski typ II	1.5 kg (13.4%)	79 %	22
Grain	Caramunich® typ I	1 kg (8.9%)	73 %	80
Grain	Carahell	0.7 kg (6.3%)	77 %	26
Grain	Strzegom Czekoladowy ciemny	0.4 kg (3.6%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	55 g	55 min	8.5 %
Boil	Lublin (Lubelski)	40 g	0 min	3.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	200 ml	Fermentum Mobile