

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **31**
- SRM **35.6**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **105 min**
- Evaporation rate **10 %/h**
- Boil size **20.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **24.9 liter(s)**

Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19.1 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **20.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	1.25 kg (21.6%)	79 %	16
Grain	Monachijski Ciemny Steinbach	0.4 kg (6.9%)	100 %	30
Grain	Strzegom Monachijski typ II	0.6 kg (10.3%)	79 %	22
Grain	Caramel/Crystal Malt - 10L	0.5 kg (8.6%)	75 %	20
Grain	Strzegom Czekoladowy jasny	0.25 kg (4.3%)	68 %	400
Grain	Carafa III	0.3 kg (5.2%)	70 %	1300
Grain	Żytni	0.3 kg (5.2%)	85 %	8
Grain	Płatki owsiane	0.4 kg (6.9%)	85 %	3
Grain	Jęczmień niesłodowany	0.4 kg (6.9%)	75 %	2
Grain	Pilzneński	1.4 kg (24.1%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	Chinook	20 g	60 min	13 %
Boil	Lublin (Lubelski)	30 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	24 g	Mangrove Jack's