

Porter

- Gravity **21.1 BLG**
- ABV **9.4 %**
- IBU **41**
- SRM **32.1**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **8.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **11.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.4 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **2.5 liter(s)** of **76C** water or to achieve **11.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Vienna Malt	2 kg (56.3%)	78 %	8
Grain	Monachijski	0.65 kg (18.3%)	80 %	16
Grain	Viking Pilsner malt	0.5 kg (14.1%)	82 %	4
Grain	Viking Chocolate Malt 1200	0.2 kg (5.6%)	68 %	1200
Grain	Rye, Flaked	0.2 kg (5.6%)	78.3 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	13 g	60 min	10.3 %
Boil	Lublin (Lubelski)	13 g	20 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	13 g	7 min	4 %
Boil	Magnat	4 g	30 min	14.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis