

Porter Stout

- Gravity **16.4 BLG**
- ABV ---
- IBU **144**
- SRM **40.1**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **3 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **20.2 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **53 C**, Time **30 min**
- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **20.2 liter(s)** of strike water to **58.1C**
- Add grains
- Keep mash **30 min** at **53C**
- Keep mash **60 min** at **66C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (31.7%)	81 %	4
Grain	Monachijski	2 kg (31.7%)	80 %	16
Grain	Pszeniczny	0.5 kg (7.9%)	85 %	4
Grain	Strzegom Czekoladowy ciemny	0.5 kg (7.9%)	68 %	1200
Grain	Caraaroma	0.3 kg (4.8%)	78 %	400
Grain	Płatki owsiane	0.5 kg (7.9%)	85 %	3
Grain	Brown Malt (British Chocolate)	0.5 kg (7.9%)	70 %	128

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Merkur	30 g	60 min	14 %
Boil	Magnum	30 g	60 min	13.5 %
Boil	Chinook	30 g	60 min	13 %
Boil	Vanguard	60 g	15 min	5.5 %
Boil	Hersbrucker	30 g	15 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	---
Gęstwa z US-04	Ale	Slant	200 ml	---

Extras

Type	Name	Amount	Use for	Time
Flavor	Kawa całe ziarna	50 g	Boil	30 min