

Porter

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **22**
- SRM **27.2**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.9 liter(s)**
- Total mash volume **41.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **30.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (34%)	80 %	4
Grain	Strzegom Monachijski typ I	5.5 kg (53.4%)	79 %	16
Grain	Karmelowy Jasny 30EBC	0.6 kg (5.8%)	75 %	30
Grain	Caraaroma	0.45 kg (4.4%)	78 %	400
Grain	Strzegom Barwiący	0.25 kg (2.4%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	70 g	10 min	10 %
Boil	Lublin (Lubelski)	25 g	45 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	500 ml	Fermentum Mobile