PORTER

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **29**
- SRM **36.3**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **0 %**
- Size with trub loss **24 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **32.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.7 liter(s)**
- Total mash volume **34.2 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **25.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3 kg *(35.1%)*	79 %	19
Grain	Strzegom Wiedeński	3 kg *(35.1%)*	79 %	11
Grain	Oats, Flaked	0.8 kg *(9.4%)*	80 %	1
Grain	Caraaroma (Weyermann)	0.5 kg *(5.8%)*	73.58 %	474
Grain	Special W	0.5 kg *(5.8%)*	80.07 %	404
Grain	Żyto nie słodowane	0.5 kg *(5.8%)*	63 %	11
Grain	Strzegom Czekoladowy ciemny	0.25 kg *(2.9%)*	68 %	1353

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10.5 %
Boil	Lublin (Lubelski)	30 g	20 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory

Saflager Lager	Lager	Slant	500 ml	DCL/Fermentis