

Porter

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **30**
- SRM **30**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **36.9 liter(s)**
- Total mash volume **47.5 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **36.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	5 kg (47.4%)	79 %	22
Grain	Pilzneński	2 kg (19%)	81 %	4
Grain	Briess - Pale Ale Malt	2 kg (19%)	80 %	7
Grain	Fawcett - Brown	0.5 kg (4.7%)	72 %	180
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (4.7%)	73 %	120
Grain	Fawcett - Pszeniczny Czekoladowy	0.35 kg (3.3%)	73 %	900
Grain	Fawcett - Pale Chocolate	0.2 kg (1.9%)	71 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	10 %
Boil	Perle	25 g	20 min	8.4 %
Boil	Perle	25 g	5 min	8.4 %