

## porter wedzony

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **37**
- SRM **28.4**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **14.9 liter(s)** of strike water to **78.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wędzony bukiem Viking Malt	5 kg (74.1%)	82 %	10
Grain	Strzegom Monachijski typ II	1 kg (14.8%)	79 %	22
Grain	Special B Castle	0.25 kg (3.7%)	70 %	350
Grain	Strzegom Czekoladowy 1200	0.25 kg (3.7%)	68 %	1202
Grain	Strzegom Karmel 600	0.25 kg (3.7%)	68 %	601
Grain	Strzegom Barwiący	0 kg	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	3.2 %
Boil	Marynka	35 g	60 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis