

PORTER ANGIELSKI

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **25**
- SRM **19.3**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.9 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **14.2 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **10.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Heidelberg	2.4 kg (67.6%)	80.5 %	3
Grain	Brown Malt (British Chocolate)	0.4 kg (11.3%)	70 %	128
Grain	Fawcett - Crystal	0.25 kg (7%)	70 %	160
Grain	Biscuit Malt	0.2 kg (5.6%)	79 %	45
Grain	Płatki owsiane	0.15 kg (4.2%)	60 %	3
Grain	Weyermann - Chocolate Wheat	0.15 kg (4.2%)	74 %	788

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz	50 g	60 min	3.3 %