

## #070 English Porter

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- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **26**
- SRM **23.1**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **25.2 liter(s)**

### Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **23.8 liter(s)**

### Steps

- Temp **64 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	2.2 kg (46.3%)	83 %	6.5
Grain	Viking Pilsner malt	0.6 kg (12.6%)	82 %	4
Grain	Crisp Brown	1 kg (21.1%)	72 %	135
Grain	Strzegom Karmel 300	0.3 kg (6.3%)	70 %	299
Grain	Słód pszeniczny Bestmalz	0.3 kg (6.3%)	82 %	5
Grain	Fawcett - Dark Crystal	0.25 kg (5.3%)	71 %	220
Grain	Viking Czekoladowy ciemny	0.1 kg (2.1%)	67 %	900

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	25 g	60 min	6.8 %
Boil	East Kent Goldings	15 g	15 min	6.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc T	1.25 g	Boil	10 min
Other	pożywka dla drożdży	10 g	Boil	10 min