

## Porter angielski 13 BLG

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **22.6**
- Style **Brown Porter**

### 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 **4.3 liter(s) / kg**
- Mash size **26.8 liter(s)**
- Total mash volume **33.1 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **26.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.48 kg (87.8%)	80 %	5
Grain	Strzegom Karmel 300	0.4 kg (6.4%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.6%)	68 %	1200
Grain	słód prażony	0.16 kg (2.6%)	70 %	1200
Grain	Strzegom Karmel 150	0.1 kg (1.6%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	5.1 %
Boil	Chinook	10 g	60 min	12.1 %
Boil	Fuggles	15 g	20 min	3.65 %
Boil	Fuggles	15 g	10 min	3.65 %