

# porter angielski

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **26**
- SRM **22.2**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	fawcett - pale ale maris otter	3.9 kg (79.6%)	80 %	5
Grain	Simpsons - Caramalt	0.4 kg (8.2%)	76 %	35
Grain	Strzegom Karmel 300	0.4 kg (8.2%)	70 %	299
Grain	Pszeniczny Czekoladowy	0.2 kg (4.1%)	73 %	1001

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	10 %
Aroma (end of boil)	East Kent Goldings	20 g	8 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	1333.33 ml	---