

# Porter angielski

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **22**
- SRM **24.8**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3 kg (85.7%)	80 %	8
Grain	Caramel/Crystal Malt - 30L	0.15 kg (4.3%)	75 %	59
Grain	Brown Malt (British Chocolate)	0.15 kg (4.3%)	70 %	200
Grain	Jęczmień palony	0.2 kg (5.7%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	15 g	60 min	4.5 %
Boil	Fuggles	15 g	30 min	4.5 %
Boil	Fuggles	10 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	6 g	Fermentis