

# Porter angielski

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **26.7**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	3.2 kg (61.5%)	78 %	6
Grain	Chocolate Malt (UK)	0.5 kg (9.6%)	73 %	887
Grain	Biscuit Malt	1 kg (19.2%)	79 %	45
Grain	Karmelowy żytni Strzegom	0.5 kg (9.6%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	40 g	60 min	6 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	śliwka wędzona	300 g	Boil	10 min
Spice	wędzona śliwka	200 g	Secondary	2 day(s)