

# Porter angielski

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **24.3**
- 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	3.3 kg (63.5%)	78 %	6
Grain	Chocolate Malt (UK)	0.5 kg (9.6%)	73 %	887
Grain	Biscuit Malt	0.5 kg (9.6%)	79 %	45
Grain	Żytni	0.5 kg (9.6%)	85 %	8
Grain	Strzegom Bursztynowy	0.4 kg (7.7%)	70 %	49

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sabro	10 g	60 min	15 %
Aroma (end of boil)	Sabro	20 g	10 min	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	śliwka wędzona	600 g	Boil	10 min