#14 Porter Angielski

- Gravity **12.1 BLG**
- ABV **---**
- IBU **30**
- SRM **27.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Thomas Fawcett Halcyon	3.4 kg *(75.6%)*	80.5 %	5
Grain	Fawcett - Brown	0.45 kg *(10%)*	72 %	180
Grain	Fawcett - Crystal	0.4 kg *(8.9%)*	70 %	160
Grain	Fawcett - Pale Chocolate	0.25 kg *(5.6%)*	71 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	15 g	60 min	14.3 %
Boil	Bramling	15 g	15 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	250 ml	Fermentum Mobile

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.