

## Brown Porter (zmodyfikowana receptura M.Jędrzejewskiego)

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **20**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **0 %**
- Size with trub loss **28 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

### Steps

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

### Mash step by step

- Heat up **21.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **33.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.9 kg (79.2%)	80 %	5
Grain	Brown Malt (British Chocolate)	0.7 kg (11.3%)	72 %	187
Grain	Strzegom Karmel 150	0.35 kg (5.7%)	75 %	150
Grain	Weyermann - Carafa I special	0.24 kg (3.8%)	65 %	900

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	49 g	60 min	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M07 British Ale	Ale	Dry	14 g	Mangrove Jack's