

## brown porter

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **26**
- SRM **24.1**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type    | Name                        | Amount         | Yield | EBC  |
|---------|-----------------------------|----------------|-------|------|
| Grain   | Viking Pale Ale malt        | 3.1 kg (63.3%) | 80 %  | 6    |
| Grain   | Strzegom Karmelowy 200      | 0.5 kg (10.2%) | 75 %  | 200  |
| Grain   | Strzegom cookie Bursztynowy | 0.5 kg (10.2%) | 70 %  | 49   |
| Grain   | Strzegom Czekoladowy jasny  | 0.2 kg (4.1%)  | 68 %  | 400  |
| Grain   | Viking melanoidynowy        | 0.5 kg (10.2%) | 75 %  | 70   |
| Adjunct | Strzegom Barwiący 1600      | 0.1 kg (2%)    | 1 %   | 1600 |

### Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | Challenger         | 20 g   | 60 min | 7.3 %      |
| Aroma (end of boil) | East Kent Goldings | 10 g   | 30 min | 5.27 %     |
| Aroma (end of boil) | Challenger         | 10 g   | 15 min | 7.3 %      |
| Whirlpool           | East Kent Goldings | 20 g   | 1 min  | 5.27 %     |

### Yeasts

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

| <b>Name</b>          | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|----------------------|-------------|-------------|---------------|-------------------|
| Danstar - Nottingham | Ale         | Dry         | 11 g          | Danstar           |

### **Extras**

| <b>Type</b> | <b>Name</b>    | <b>Amount</b> | <b>Use for</b> | <b>Time</b> |
|-------------|----------------|---------------|----------------|-------------|
| Fining      | mech irlandzki | 5 g           | Boil           | 15 min      |