

# Brown Porter

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **21**
- SRM **25.2**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **69 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **22.9 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **70 min** at **69C**
- Keep mash **5 min** at **76C**
- Sparge using **5 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield  | EBC |
|-------|--------------------------------|----------------|--------|-----|
| Grain | Strzegom Pale Ale              | 3.7 kg (72.5%) | 79 %   | 6   |
| Grain | Brown Malt (British Chocolate) | 0.5 kg (9.8%)  | 70 %   | 175 |
| Grain | Red Crystal 400 EBC            | 0.5 kg (9.8%)  | 71.3 % | 400 |
| Grain | Słód owsiany Fawcett           | 0.3 kg (5.9%)  | 61 %   | 5   |
| Grain | pszeniczny czekoladowy         | 0.1 kg (2%)    | 72.7 % | 887 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Fuggles | 30 g   | 60 min | 5 %        |
| Boil    | Fuggles | 20 g   | 5 min  | 5 %        |

## Yeasts

| Name                                     | Type | Form | Amount | Laboratory      |
|--|------|------|--------|-----------------|
| Mangrove Jack's M42 New World Strong Ale | Ale  | Dry  | 11 g   | Mangrove Jack's |

## Extras

| Type   | Name            | Amount | Use for | Time   |
|--------|-----------------|--------|---------|--------|
| Fining | Whirfloc        | 6 g    | Boil    | 15 min |
| Other  | gips piwowarski | 6 g    | Mash    | 70 min |