

Brown Porter

- 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 |