

Brown Porter

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **21.5**
- 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 **5 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.75 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|----------------|-------|------|
| Grain | Pilzneński | 2.5 kg (46.3%) | 81 % | 4 |
| Grain | Monachijski typ II 20-25 EBC Weyermann | 1 kg (18.5%) | 80 % | 20 |
| Grain | Biscuit Malt | 0.6 kg (11.1%) | 79 % | 45 |
| Grain | Monachijski | 0.5 kg (9.3%) | 80 % | 16 |
| Grain | Brown Malt (British Chocolate) | 0.5 kg (9.3%) | 70 % | 128 |
| Grain | Fawcett - Pale Chocolate | 0.15 kg (2.8%) | 71 % | 600 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.15 kg (2.8%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 25 g | 60 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 100 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|--------|---------|--------|
| Water Agent | lactic acid | 5 g | Mash | 60 min |
| Water Agent | caso4 | 5 g | Mash | 60 min |
| Fining | whirlfloc-t | 2.5 g | Boil | 10 min |