

Brown Porter

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **31**
- SRM **27.2**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **0 %**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (78.4%) | 80 % | 4 |
| Grain | Weyermann - Chocolate Rye | 0.15 kg (2.9%) | 20 % | 493 |
| Grain | Fawcett - Brown | 0.5 kg (9.8%) | 72 % | 180 |
| Grain | Weyermann - Chocolate Wheat | 0.15 kg (2.9%) | 74 % | 788 |
| Grain | Caraaroma | 0.2 kg (3.9%) | 78 % | 400 |
| Grain | Weyermann - Carafa I | 0.1 kg (2%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Aroma (end of boil) | Marynka | 35 g | 1 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |