

BROWN PORTER Z PK

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **26**
- SRM **12.3**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **4 %**
- Size with trub loss **23.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|-----|
| Grain | Thomas Fawcett Halcyon | 3.4 kg (64.8%) | 80.5 % | 5 |
| Grain | Fawcett - Brown | 0.45 kg (8.6%) | 72 % | 180 |
| Grain | Fawcett - Crystal | 0.4 kg (7.6%) | 70 % | 160 |
| Grain | Fawcett - Pale Chocolate | 0 kg | 71 % | 600 |
| Grain | Weyermann - Pale Ale Malt | 1 kg (19%) | 85 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Admiral | 15 g | 60 min | 14.3 % |
| Boil | Bramling | 15 g | 15 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|------|------|--------|------------|
| M15 mangrove jack`s | Ale | Dry | 11.5 g | --- |