

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