

## American Brown porter

- Gravity **12.8 BLG**
- ABV ---
- IBU **50**
- SRM **31.6**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **10 %**
- Size with trub loss **33 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **20.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22.8 liter(s)** of **76C** water or to achieve **36.3 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 4 kg (59.3%)   | 85 %  | 7   |
| Grain | Caraaroma                 | 0.25 kg (3.7%) | 78 %  | 400 |
| Grain | żytni czekoladwy          | 0.25 kg (3.7%) | 78 %  | 650 |
| Grain | Caraamber                 | 1 kg (14.8%)   | 75 %  | 59  |
| Grain | Special B Malt            | 0.25 kg (3.7%) | 77 %  | 290 |
| Grain | cara-crystal              | 0.5 kg (7.4%)  | 78 %  | 120 |
| Grain | Aroma 150 EBC Brewferm    | 0.5 kg (7.4%)  | 78 %  | 150 |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | simcoe | 15 g   | 60 min | 11.4 %     |
| Boil    | simcoe | 10 g   | 30 min | 11.4 %     |
| Boil    | simcoe | 10 g   | 10 min | 11.4 %     |
| Boil    | waiema | 10 g   | 60 min | 17.3 %     |
| Boil    | waiema | 10 g   | 30 min | 17.3 %     |
| Boil    | waiema | 10 g   | 10 min | 17.3 %     |

|         |              |      |          |        |
|---------|--------------|------|----------|--------|
| Dry Hop | waiema       | 20 g | 3 day(s) | 17.3 % |
| Dry Hop | simcoe       | 15 g | 3 day(s) | 11.4 % |
| Dry Hop | Pacific Jade | 50 g | 3 day(s) | 14.6 % |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |