

American Porter

- Gravity **13.8 BLG**
- ABV ---
- IBU **59**
- SRM **30.4**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **3 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **25 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 4 kg (76.5%) | 80 % | 5 |
| Grain | Briess - Caramel Munich Malt 60L | 0.25 kg (4.8%) | 77 % | 118 |
| Grain | Weyermann Specjal W | 0.2 kg (3.8%) | 68 % | 300 |
| Grain | Fawcett - Dark Crystal | 0.3 kg (5.7%) | 71 % | 300 |
| Grain | Biscuit Malt | 0.2 kg (3.8%) | 79 % | 50 |
| Grain | Caramunich typ III | 0.2 kg (3.8%) | 77 % | 150 |
| Grain | black malt extra | 0.08 kg (1.5%) | 55 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Simcoe | 25 g | 60 min | 13.2 % |
| Boil | Cascade | 15 g | 30 min | 6 % |
| Boil | Citra | 10 g | 30 min | 12 % |
| Boil | East Kent Goldings | 10 g | 30 min | 5.1 % |
| Boil | Cascade | 10 g | 1 min | 6 % |

| | | | | |
|---------|--------------------|------|----------|--------|
| Boil | Equinox | 10 g | 1 min | 13.1 % |
| Boil | East Kent Goldings | 15 g | 1 min | 5.1 % |
| Dry Hop | Cascade | 10 g | 5 day(s) | 6 % |
| Dry Hop | Equinox | 10 g | 5 day(s) | 13.1 % |
| Dry Hop | East Kent Goldings | 10 g | 5 day(s) | 5.1 % |

Yeasts

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