

John Browner

- Gravity **13.5 BLG**
- ABV ---
- IBU **37**
- SRM **31.2**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|--------------|-------|------|
| Grain | Strzegom Pale Ale | 2.2 kg (88%) | 79 % | 6 |
| Grain | Strzegom Karmel 300 | 0.2 kg (8%) | 70 % | 299 |
| Grain | Strzegom Czekoladowy ciemny | 0.05 kg (2%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.05 kg (2%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|-----------|------------|
| Boil | Fuggles | 7.5 g | 40 min | 4.5 % |
| Boil | Fuggles | 7.5 g | 50 min | 4.5 % |
| Dry Hop | Cascade | 15 g | 14 day(s) | 6 % |
| Boil | Challenger | 15 g | 60 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |