

# PORTER ANGIELSKI

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **25**
- SRM **19.3**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.9 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **14.2 liter(s)**

## Steps

- Temp **68 C**, Time **80 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **10.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield  | EBC |
|-------|--------------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Heidelberg     | 2.4 kg (67.6%) | 80.5 % | 3   |
| Grain | Brown Malt (British Chocolate) | 0.4 kg (11.3%) | 70 %   | 128 |
| Grain | Fawcett - Crystal              | 0.25 kg (7%)   | 70 %   | 160 |
| Grain | Biscuit Malt                   | 0.2 kg (5.6%)  | 79 %   | 45  |
| Grain | Płatki owsiane                 | 0.15 kg (4.2%) | 60 %   | 3   |
| Grain | Weyermann - Chocolate Wheat    | 0.15 kg (4.2%) | 74 %   | 788 |

## Hops

| Use for | Name | Amount | Time   | Alpha acid |
|---------|------|--------|--------|------------|
| Boil    | Saaz | 50 g   | 60 min | 3.3 %      |