

# PORTER ANGIELSKI

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **34**
- SRM **22.6**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **13.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.8 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **17.8 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount          | Yield | EBC |
|-------|--------------------------------|-----------------|-------|-----|
| Grain | Simpsons - Maris Otter         | 2.15 kg (67.2%) | 81 %  | 6   |
| Grain | Brown Malt (British Chocolate) | 0.35 kg (10.9%) | 70 %  | 128 |
| Grain | Płatki owsiane                 | 0.25 kg (7.8%)  | 60 %  | 3   |
| Grain | Fawcett - Crystal              | 0.25 kg (7.8%)  | 70 %  | 160 |
| Grain | Weyermann - Chocolate Wheat    | 0.2 kg (6.3%)   | 74 %  | 788 |

## Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 30 g   | 60 min | 6.8 %      |