

# ENG-PORTER.T1

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **25.6**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **22.3 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt      | 4.2 kg (84.8%) | 80 %  | 7    |
| Grain | Strzegom Karmel 300         | 0.5 kg (10.1%) | 70 %  | 299  |
| Grain | Strzegom Czekoladowy ciemny | 0.15 kg (3%)   | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.1 kg (2%)    | 55 %  | 985  |

## Hops

| Use for | Name            | Amount | Time   | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil    | Perle           | 30 g   | 60 min | 7 %        |
| Boil    | Styrian Golding | 30 g   | 15 min | 3.6 %      |

## Yeasts

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