

## #049 English Porter

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **27**
- SRM **25.2**

### Batch size

- Expected quantity of finished beer **23.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **12.5 %/h**
- Boil size **31.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.4 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Fawcett Maris Otter       | 2.6 kg (46.4%) | 81 %  | 5   |
| Grain | Viking Pale Ale malt      | 0.6 kg (10.7%) | 80 %  | 5   |
| Grain | Strzegom Karmel 300       | 0.8 kg (14.3%) | 70 %  | 299 |
| Grain | Fawcett - Brown           | 1 kg (17.9%)   | 72 %  | 180 |
| Grain | Viking Wheat Malt         | 0.3 kg (5.4%)  | 83 %  | 5   |
| Grain | Fawcett - Dark Crystal    | 0.25 kg (4.5%) | 71 %  | 220 |
| Grain | Viking Czekoladowy ciemny | 0.05 kg (0.9%) | 67 %  | 900 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 35 g   | 70 min | 5.7 %      |
| Boil    | East Kent Goldings | 25 g   | 15 min | 5.7 %      |

### Yeasts

| Name                  | Type | Form  | Amount | Laboratory       |
|-----------------------|------|-------|--------|------------------|
| FM11 Wichrowe Wzgórza | Ale  | Slant | 300 ml | Fermentum Mobile |

## Extras

| Type   | Name                       | Amount | Use for | Time   |
|--------|----------------------------|--------|---------|--------|
| Fining | whirfloc T                 | 1.25 g | Boil    | 10 min |
| Other  | pożywka dla drożdży Wyeast | 3 g    | Boil    | 10 min |