

# Porter angielski Piwowar nr 47 troche przerobiony

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **28**
- SRM **26.1**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.4 liter(s)**
- Total mash volume **9.5 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **7.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                                                                   | Amount         | Yield | EBC  |
|-------|------------------------------------------------------------------------|----------------|-------|------|
| Grain | Słód jęczmienny<br>Maris Otter Pale Ale<br>5-7,5 EBC Thomas<br>Fawcett | 1.7 kg (81%)   | 80 %  | 6    |
| Grain | Red Crystal 350-450<br>EBC Thomas Fawcett                              | 0.15 kg (7.1%) | 70 %  | 400  |
| Grain | Fawcett - Crystal                                                      | 0.1 kg (4.8%)  | 70 %  | 160  |
| Grain | Wayerman -<br>Pszeniczny<br>Czekoladowy                                | 0.05 kg (2.4%) | 73 %  | 1001 |
| Grain | Jęczmień palony                                                        | 0.1 kg (4.8%)  | 55 %  | 985  |

## Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | Challenger         | 10 g   | 80 min | 7 %        |
| Boil                | East Kent Goldings | 10 g   | 20 min | 5.1 %      |
| Aroma (end of boil) | East Kent Goldings | 10 g   | 5 min  | 5.1 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                              |     |       |        |                  |
|------------------------------|-----|-------|--------|------------------|
| FM13 Irlandzkie<br>Ciemności | Ale | Slant | 0.3 ml | Fermentum Mobile |
|------------------------------|-----|-------|--------|------------------|