

## Brown Porter (zmodyfikowana receptura M.Jędrzejewskiego)

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **20**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **0 %**
- Size with trub loss **28 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **21.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **33.9 liter(s)** of wort

### Fermentables

| Type  | Name                           | Amount         | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt           | 4.9 kg (79.2%) | 80 %  | 5   |
| Grain | Brown Malt (British Chocolate) | 0.7 kg (11.3%) | 72 %  | 187 |
| Grain | Strzegom Karmel 150            | 0.35 kg (5.7%) | 75 %  | 150 |
| Grain | Weyermann - Carafa I special   | 0.24 kg (3.8%) | 65 %  | 900 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 49 g   | 60 min | 5.2 %      |

### Yeasts

| Name                            | Type | Form | Amount | Laboratory      |
|---------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M07 British Ale | Ale  | Dry  | 14 g   | Mangrove Jack's |