

# Weselne Maćka i Oli

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **30**
- SRM **26.4**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt     | 3.5 kg (71.4%) | 80 %  | 5   |
| Grain | Weyermann - Carawheat    | 0.3 kg (6.1%)  | 77 %  | 97  |
| Grain | Biscuit Malt             | 0.3 kg (6.1%)  | 79 %  | 50  |
| Grain | Jęczmień palony          | 0.2 kg (4.1%)  | 55 %  | 985 |
| Grain | Fawcett - Dark Crystal   | 0.2 kg (4.1%)  | 71 %  | 300 |
| Grain | Fawcett - Pale Chocolate | 0.2 kg (4.1%)  | 71 %  | 600 |
| Grain | Special W                | 0.2 kg (4.1%)  | 70 %  | 300 |

## Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | Admiral            | 15 g   | 60 min | 14.3 %     |
| Boil    | East Kent Goldings | 10 g   | 20 min | 5.1 %      |
| Boil    | Challenger         | 10 g   | 20 min | 7 %        |

## Yeasts

| <b>Name</b>          | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|----------------------|-------------|-------------|---------------|-------------------|
| FM12 W szkocką kratę | Ale         | Liquid      | 200 ml        | fermentum mobile  |