

## Marcowe-moje

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **24**
- SRM **4.4**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **52 C**, Time **30 min**
- Temp **66 C**, Time **60 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **30 min** at **52C**
- Keep mash **60 min** at **66C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

| Type  | Name               | Amount       | Yield | EBC |
|-------|--------------------|--------------|-------|-----|
| Grain | Strzegom Wiedeński | 4 kg (66.7%) | 79 %  | 10  |
| Grain | Słód monachijski   | 2 kg (33.3%) | --- % | --- |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Citra      | 15 g   | 30 min | 12 %       |
| Boil    | Cascade PL | 15 g   | 30 min | 5.2 %      |
| Boil    | Centennial | 15 g   | 15 min | 10.5 %     |

### Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11.5 g | Fermentis  |