

# Marcowe Twój Browar

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- Gravity **15 BLG**
- ABV ---
- IBU **34**
- SRM **9.9**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **45 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński          | 2 kg (35%)     | 79 %  | 10  |
| Grain | Strzegom Monachijski typ II | 2 kg (35%)     | 79 %  | 22  |
| Grain | Strzegom Karmel 30          | 0.22 kg (3.8%) | 75 %  | 30  |
| Grain | Strzegom Monachijski typ I  | 1.5 kg (26.2%) | 79 %  | 25  |

## Hops

| Use for             | Name                  | Amount | Time   | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil                | Lunga                 | 22 g   | 60 min | 12.9 %     |
| Boil                | Saaz (Czech Republic) | 22 g   | 20 min | 4.5 %      |
| Aroma (end of boil) | Saaz (Czech Republic) | 25 g   | 0 min  | 4.5 %      |

## Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11 g   | Saflager   |