

# Marcowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **7.6**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name   | Amount        | Yield | EBC |
|-------|--|---------------|-------|-----|
| Grain | Pilzneński                                   | 2.5 kg (49%)  | 81 %  | 4   |
| Grain | Monachijski typ II<br>20-25 EBC<br>Weyermann | 2 kg (39.2%)  | 80 %  | 20  |
| Grain | Strzegom Wiedeński                           | 0.2 kg (3.9%) | 79 %  | 10  |
| Grain | Carahell                                     | 0.2 kg (3.9%) | 77 %  | 26  |
| Grain | Weyermann<br>Caramunich 3                    | 0.1 kg (2%)   | 76 %  | 150 |
| Grain | zakwaszający                                 | 0.1 kg (2%)   | --- % | --- |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Magnum                | 15 g   | 60 min | 13.5 %     |
| Boil    | Saaz (Czech Republic) | 20 g   | 20 min | 4.5 %      |

## Yeasts

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

|                  |       |       |        |           |
|------------------|-------|-------|--------|-----------|
| Saflager W 34/70 | Lager | Slant | 250 ml | Fermentis |
|------------------|-------|-------|--------|-----------|

### Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Fining | mech | 7 g    | Boil    | 15 min |