

# Marcowe

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **31**
- SRM **8.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **13 %/h**
- Boil size **28.1 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **25.8 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **74 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | słód pilzneński            | 2 kg (31%)     | 80 %  | 4   |
| Grain | słód monachijski           | 2 kg (31%)     | 80 %  | 16  |
| Grain | słód wiedeński             | 2 kg (31%)     | 80 %  | 9   |
| Grain | Carahell                   | 0.15 kg (2.3%) | 77 %  | 26  |
| Grain | BESTMALZ - Best Melanoidin | 0.3 kg (4.7%)  | 75 %  | 71  |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Marynka  | 23 g   | 60 min | 10 %       |
| Boil    | Tettnang | 17 g   | 20 min | 4 %        |
| Boil    | Marynka  | 4 g    | 20 min | 10 %       |

## Yeasts

| Name              | Type  | Form  | Amount | Laboratory |
|-------------------|-------|-------|--------|------------|
| fermentis w34/70, | Lager | Slant | 200 ml | ---        |