

# Marcowe

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **24**
- SRM **8.8**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **58 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 **14.1 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **10 min** at **58C**
- 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 **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński     | 2 kg (42.6%)   | 79 %  | 10  |
| Grain | Monachijski            | 2.5 kg (53.2%) | 80 %  | 16  |
| Grain | Strzegom Karmel<br>150 | 0.2 kg (4.3%)  | 75 %  | 150 |

## Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Perle       | 28 g   | 60 min | 7 %        |
| Boil    | Hersbrucker | 15 g   | 10 min | 3 %        |

## Yeasts

| Name | Type  | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| S23  | Lager | Dry  | 10 g   | ---        |