

# Marcowe

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **6.4**
- 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 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **64 C**, Time **30 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **15 min** at **68C**
- Keep mash **45 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount       | Yield | EBC |
|-------|---------------------|--------------|-------|-----|
| Grain | Viking Pilsner malt | 3 kg (60%)   | 82 %  | 4   |
| Grain | Viking Munich Malt  | 1.5 kg (30%) | 78 %  | 18  |
| Grain | Strzegom Karmel 30  | 0.5 kg (10%) | 75 %  | 30  |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 17 g   | 60 min | 12 %       |

## Yeasts

| Name          | Type  | Form | Amount | Laboratory                         |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry  | 11.5 g | Fermentis Division of S.I.Lesaffre |
| Brewgo lager  | Lager | Dry  | 11.5 g | Browin                             |