

# MARCOWE

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **8.6**
- 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 **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 **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **15 min** at **72C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount         | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński               | 2.7 kg (50.9%) | 79 %  | 10  |
| Grain | Monachijski                      | 2 kg (37.7%)   | 80 %  | 16  |
| Grain | Słód Caramunich Typ II Weyermann | 0.2 kg (3.8%)  | 73 %  | 120 |
| Grain | Carahell                         | 0.1 kg (1.9%)  | 77 %  | 26  |
| Grain | Weyermann - Carapils             | 0.3 kg (5.7%)  | 78 %  | 4   |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Hallertauer Mittelfruh | 30 g   | 10 min | 4.9 %      |
| Boil    | Liberty                | 30 g   | 60 min | 4.5 %      |

## Yeasts

| Name                  | Type  | Form | Amount | Laboratory |
|-----------------------|-------|------|--------|------------|
| Danstar Diamond Lager | Lager | Dry  | 11 g   | ---        |