

# Marcowe

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **6**
- SRM **8.3**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **52 C**, Time **30 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **30 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **3 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński         | 2.8 kg (50%)   | 79 %  | 10  |
| Grain | Strzegom Monachijski typ I | 2.6 kg (46.4%) | 79 %  | 16  |
| Grain | Caramunich® typ I          | 0.2 kg (3.6%)  | 73 %  | 80  |

## Hops

| Use for             | Name        | Amount | Time   | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil                | Hersbrucker | 15 g   | 75 min | 3 %        |
| Aroma (end of boil) | Hersbrucker | 55 g   | 1 min  | 3 %        |

## Yeasts

| Name          | Type  | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------|
| Saflager S-23 | Lager | Dry  | 11.5 g | Fermentis  |