

# Marcowe ale

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **18**
- SRM **9.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount       | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 4 kg (57.1%) | 79 %  | 22  |
| Grain | Strzegom Wiedeński          | 3 kg (42.9%) | 79 %  | 10  |

## Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Tradition | 50 g   | 60 min | 4.3 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale K-97 | Ale  | Dry  | 11.5 g | Fermentis  |