

# MARCOWE

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- Gravity **15 BLG**
- ABV ---
- IBU **23**
- SRM **11.3**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **46.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.8 liter(s)**
- Total mash volume **41 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **30.8 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **25.8 liter(s)** of **76C** water or to achieve **46.3 liter(s)** of wort

## Fermentables

| Type    | Name                 | Amount         | Yield  | EBC |
|---------|----------------------|----------------|--------|-----|
| Grain   | Briess - Pilsen Malt | 5 kg (47.6%)   | 80.5 % | 2   |
| Grain   | Strzegom Wiedeński   | 2.8 kg (26.7%) | 79 %   | 10  |
| Grain   | Monachijski          | 1.9 kg (18.1%) | 80 %   | 16  |
| Grain   | cristal              | 0.25 kg (2.4%) | 75 %   | 160 |
| Adjunct | płatki żynie         | 0.25 kg (2.4%) | 80 %   | 5   |
| Grain   | Caraaroma            | 0.3 kg (2.9%)  | 78 %   | 400 |

## Hops

| Use for    | Name              | Amount | Time   | Alpha acid |
|------------|-------------------|--------|--------|------------|
| First Wort | Marynka           | 20 g   | 90 min | 10 %       |
| Boil       | Marynka           | 25 g   | 15 min | 10 %       |
| Boil       | Lublin (Lubelski) | 25 g   | 10 min | 4 %        |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                         |       |        |        |             |
|-------------------------|-------|--------|--------|-------------|
| Wyeast - Bavarian Lager | Lager | Liquid | 100 ml | Wyeast Labs |
|-------------------------|-------|--------|--------|-------------|

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 10 g   | Boil    | 10 min |