

# Marcowe

- Gravity **13.8 BLG**
- ABV ---
- IBU **24**
- SRM **9**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.3 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **67 C**, Time **75 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński                 | 2.7 kg (77.1%) | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.6 kg (17.1%) | 79 %  | 16  |
| Grain | Strzegom Karmel 150        | 0.2 kg (5.7%)  | 75 %  | 150 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Tettnang              | 12 g   | 60 min | 4 %        |
| Boil    | Tettnang              | 10 g   | 30 min | 4 %        |
| Boil    | Saaz (Czech Republic) | 10 g   | 30 min | 4.5 %      |
| Boil    | Saaz (Czech Republic) | 15 g   | 5 min  | 4.5 %      |

## Yeasts

| Name                 | Type  | Form   | Amount | Laboratory       |
|----------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 125 ml | Fermentum Mobile |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                |     |      |        |
|--------|----------------|-----|------|--------|
| Fining | mech irlandzki | 5 g | Boil | 10 min |
|--------|----------------|-----|------|--------|