

## marcowe #91

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **23**
- SRM **5.2**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **73C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

| Type  | Name                              | Amount         | Yield | EBC |
|-------|-----------------------------------|----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 2 kg (57.1%)   | 81 %  | 4   |
| Grain | Strzegom Wiedeński                | 1 kg (28.6%)   | 79 %  | 10  |
| Grain | Strzegom Monachijski typ II       | 0.5 kg (14.3%) | 79 %  | 22  |

### Hops

| Use for | Name                          | Amount | Time   | Alpha acid |
|---------|-------------------------------|--------|--------|------------|
| Boil    | Hallertau Tradition polishhop | 50 g   | 20 min | 5 %        |

### Yeasts

| Name                  | Type  | Form | Amount | Laboratory |
|-----------------------|-------|------|--------|------------|
| lallemand lager yeast | Lager | Dry  | 22 g   | ---        |

### Extras

| Type   | Name      | Amount | Use for | Time  |
|--------|-----------|--------|---------|-------|
| Fining | whirlpool | 1 g    | Boil    | 5 min |