

Marcowe

- Gravity **13.2 BLG**
- ABV ---
- IBU **40**
- SRM **7.5**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Pilzneński | 4 kg (85.1%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (10.6%) | 79 % | 16 |
| Grain | Caramunich Malt | 0.2 kg (4.3%) | 71.7 % | 110 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Saaz (Czech Republic) | 30 g | 20 min | 4.5 % |
| Boil | Magnum | 20 g | 60 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|-------|------|--------|------------|
| W34/70 | Lager | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 7 g | Boil | 15 min |