

Marcowe

- Gravity **11.4 BLG**
- ABV ---
- IBU **26**
- SRM **4.2**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **23.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------|--------------|-------|-----|
| Grain | Pilzneński | 3 kg (60%) | 81 % | 4 |
| Grain | Monachijski | 1 kg (20%) | 80 % | 16 |
| Grain | Pszeniczny | 0.5 kg (10%) | 85 % | 4 |
| Grain | Karmel 8 | 0.5 kg (10%) | 75 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 12.7 % |
| Boil | Lublin (Lubelski) | 20 g | 15 min | 3.5 % |
| Boil | Lublin (Lubelski) | 30 g | 0 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 200 ml | Fermentis |