

Marcowe

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **24**
- SRM **11**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **29 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.5 kg (48.3%) | 80 % | 4 |
| Grain | Monachijski | 3.44 kg (47.5%) | 80 % | 16 |
| Grain | Strzegom Karmel 300 | 0.3 kg (4.1%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 40 g | 60 min | 4.6 % |
| Boil | Magnum | 20 g | 10 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|---------|------------|
| Saflager W 34/70 | Lager | Dry | 17.98 g | --- |