

marcowe

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **19**
- SRM **10.6**
- 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 **27.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pilzneński | 2 kg (36.4%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 2 kg (36.4%) | 79 % | 16 |
| Grain | Strzegom Wiedeński | 1 kg (18.2%) | 79 % | 10 |
| Grain | Strzegom Karmel 150 | 0.5 kg (9.1%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 15 g | 50 min | 10 % |
| Boil | Lublin (Lubelski) | 20 g | 20 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| s-23 | Lager | Dry | 10 g | --- |