

Klasyczne Marcowe wydajność 91%

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **18**
- SRM **5.7**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **3000 liter(s)**
- Trub loss **0 %**
- Size with trub loss **3000 liter(s)**
- Boil time **90 min**
- Evaporation rate **5.556 %/h**
- Boil size **3250 liter(s)**

Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1680 liter(s)**
- Total mash volume **2240 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **1680 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **2130 liter(s)** of **76C** water or to achieve **3250 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński | 220 kg (39.3%) | 81 % | 4 |
| Grain | Monachijski | 200 kg (35.7%) | 80 % | 16 |
| Grain | Strzegom Wiedeński | 100 kg (17.9%) | 79 % | 10 |
| Grain | Carahell | 30 kg (5.4%) | 77 % | 26 |
| Grain | Pszeniczny | 10 kg (1.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Marynka | 1500 g | 90 min | 10 % |
| Boil | Hallertau Spalt Select | 3500 g | 15 min | 3.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| S-23 | Lager | Dry | 3750 g | Fermentis |