

Marcowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **7.6**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.8 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|---------------|-------|-----|
| Grain | Pilzneński | 2.5 kg (49%) | 81 % | 4 |
| Grain | Monachijski typ II 20-25 EBC Weyermann | 2 kg (39.2%) | 80 % | 20 |
| Grain | Strzegom Wiedeński | 0.2 kg (3.9%) | 79 % | 10 |
| Grain | Carahell | 0.2 kg (3.9%) | 77 % | 26 |
| Grain | Weyermann Caramunich 3 | 0.1 kg (2%) | 76 % | 150 |
| Grain | zakwaszający | 0.1 kg (2%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Boil | Saaz (Czech Republic) | 20 g | 20 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|------------------|-------|-------|--------|-----------|
| Saflager W 34/70 | Lager | Slant | 250 ml | Fermentis |
|------------------|-------|-------|--------|-----------|

Extras

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