

## marcowe

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **53**
- SRM **5**
- Style **Vienna Lager**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **54 C**, Time **20 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**
- Temp **100 C**, Time **60 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **20 min** at **54C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

| Type  | Name         | Amount         | Yield  | EBC |
|-------|--------------|----------------|--------|-----|
| Grain | Pilzneński   | 5.7 kg (91.2%) | 81 %   | 4   |
| Grain | Acid Malt    | 0.15 kg (2.4%) | 58.7 % | 6   |
| Grain | Abbey Castle | 0.4 kg (6.4%)  | 80 %   | 45  |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | sybilla           | 50 g   | 70 min | 6.2 %      |
| Boil    | Lublin (Lubelski) | 25 g   | 40 min | 4 %        |
| Boil    | Marynka           | 50 g   | 10 min | 10 %       |
| Boil    | Sybilla           | 3 g    | 15 min | 3.5 %      |

### Yeasts

| Name          | Type  | Form | Amount | Laboratory                         |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry  | 23 g   | Fermentis Division of S.I.Lesaffre |

## Notes

- wyszło 15,5 blg, 24 litry, schłodzone do 20 stopni, potem na balkon.  
*Apr 26, 2020, 9:49 PM*