

## marcowe

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- 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*