

## marcowe, w maju warzone

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **25**
- SRM **9.2**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

### Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **11.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.5 kg (75.8%)	79 %	16
Grain	Pszeniczny	0.3 kg (9.1%)	85 %	4
Grain	Żytni	0.3 kg (9.1%)	85 %	8
Grain	red ale viking malt	0.2 kg (6.1%)	75 %	70

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.5 %
Aroma (end of boil)	Saaz (Czech Republic)	10 g	5 min	3.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM703	Lager	Liquid	1200 ml	---