

## Marcowe g

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- Gravity **13.1 BLG**
- ABV ---
- IBU **32**
- SRM **6.7**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **30 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **23.3 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **25 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (60%)	80 %	4
Grain	Strzegom Monachijski typ I	1.67 kg (25%)	79 %	16
Grain	Strzegom Karmel 30	1 kg (15%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Lublin (Lubelski)	25 g	10 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	58.33 ml	Fermentum Mobile