

## marcowe #91

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **23**
- SRM **5.2**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **73C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	2 kg (57.1%)	81 %	4
Grain	Strzegom Wiedeński	1 kg (28.6%)	79 %	10
Grain	Strzegom Monachijski typ II	0.5 kg (14.3%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition polishhop	50 g	20 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
lallemand lager yeast	Lager	Dry	22 g	---

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlpool	1 g	Boil	5 min