

# Marcowe

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- Gravity **13.2 BLG**
- ABV ---
- IBU **40**
- SRM **7.5**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (85.1%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (10.6%)	79 %	16
Grain	Caramunich Malt	0.2 kg (4.3%)	71.7 %	110

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	30 g	20 min	4.5 %
Boil	Magnum	20 g	60 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
W34/70	Lager	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	7 g	Boil	15 min