

# Marcowe

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- Gravity **13.8 BLG**
- ABV ---
- IBU **24**
- SRM **5.8**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

## Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (57.1%)	80 %	4
Grain	Monachijski	1 kg (19%)	80 %	16
Grain	Strzegom Karmel 30	0.25 kg (4.8%)	75 %	30
Grain	Strzegom Wiedeński	1 kg (19%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	30 g	60 min	7 %
Boil	Hallertau Spalt Select	25 g	5 min	3.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	220 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Other	Whirlflock	1 g	Boil	5 min