

# Marcowe

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **10.5**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **18.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	5 kg (80%)	79 %	10
Grain	Strzegom Monachijski typ I	1 kg (16%)	79 %	16
Grain	Strzegom Czekoladowy ciemny	0.05 kg (0.8%)	68 %	1200
Grain	Biscuit Malt	0.2 kg (3.2%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %
Boil	Saaz (Czech Republic)	20 g	30 min	4.5 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	0 min	4 %
Aroma (end of boil)	Saaz (Czech Republic)	10 g	0 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	200 ml	Fermentis