

# Marcowe ale

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **18**
- SRM **9.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	4 kg (57.1%)	79 %	22
Grain	Strzegom Wiedeński	3 kg (42.9%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	50 g	60 min	4.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Dry	11.5 g	Fermentis