

# Marcowe

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **6.6**
- 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 **27.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (36.4%)	82 %	4
Grain	Strzegom Wiedeński	2 kg (36.4%)	79 %	10
Grain	Strzegom Monachijski typ II	1.5 kg (27.3%)	79 %	22

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	35 g	60 min	5.5 %