

# Marcowe

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **6**
- SRM **8.3**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **52 C**, Time **30 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **30 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **3 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2.8 kg (50%)	79 %	10
Grain	Strzegom Monachijski typ I	2.6 kg (46.4%)	79 %	16
Grain	Caramunich® typ I	0.2 kg (3.6%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	15 g	75 min	3 %
Aroma (end of boil)	Hersbrucker	55 g	1 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11.5 g	Fermentis