

# MARCOWE

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **8.6**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **15 min** at **72C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2.7 kg (50.9%)	79 %	10
Grain	Monachijski	2 kg (37.7%)	80 %	16
Grain	Słód Caramunich Typ II Weyermann	0.2 kg (3.8%)	73 %	120
Grain	Carahell	0.1 kg (1.9%)	77 %	26
Grain	Weyermann - Carapils	0.3 kg (5.7%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Mittelfruh	30 g	10 min	4.9 %
Boil	Liberty	30 g	60 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar Diamond Lager	Lager	Dry	11 g	---