

# Marcowe

- Gravity **13.8 BLG**
- ABV ---
- IBU **24**
- SRM **9**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.3 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **67 C**, Time **75 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.7 kg (77.1%)	81 %	4
Grain	Strzegom Monachijski typ I	0.6 kg (17.1%)	79 %	16
Grain	Strzegom Karmel 150	0.2 kg (5.7%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	12 g	60 min	4 %
Boil	Tettnang	10 g	30 min	4 %
Boil	Saaz (Czech Republic)	10 g	30 min	4.5 %
Boil	Saaz (Czech Republic)	15 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	125 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Fining	mech irlandzki	5 g	Boil	10 min
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