

# marcowanie1

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **22**
- SRM **7**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **24.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (57.1%)	81 %	4
Grain	Strzegom Wiedeński	1 kg (14.3%)	79 %	10
Grain	Strzegom Monachijski typ II	1 kg (14.3%)	79 %	22
Grain	Carahell	1 kg (14.3%)	77 %	26

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Tettnang	20 g	5 min	4 %
Whirlpool	Tettnang	10 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bohemian Lager	Lager	Liquid	125 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	15 min

### Notes

- po pierwszej przerwie dekolt 5L przez 15min gotowania  
*Feb 25, 2018, 12:29 PM*