

# Marcowe Polskie

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **8.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **75 min**
- Evaporation rate **8 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	1.8 kg (30%)	80 %	16
Grain	Strzegom Wiedeński	1.8 kg (30%)	79 %	10
Grain	Strzegom Pilzneński	1.8 kg (30%)	80 %	4
Grain	Carahell	0.25 kg (4.2%)	77 %	26
Grain	Simpsons - Crystal Medium	0.25 kg (4.2%)	74 %	180
Grain	Acid Malt	0.1 kg (1.7%)	58.7 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	7.3 %
Łącznie gotowanie 75 minut				
Boil	Perle	20 g	20 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
BrewGO Lager	Lager	Dry	22 g	Browin

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	15 min