

# Marcowe tieroo z piwo.org

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **18**
- SRM **8.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **10000 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10500 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **12075 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7445.7 liter(s)**
- Total mash volume **9927.6 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **66 C**, Time **65 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **7445.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **65 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **7111.2 liter(s)** of **76C** water or to achieve **12075 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	952.38 kg (38.4%)	81 %	4
Grain	Strzegom Monachijski typ II	761.9 kg (30.7%)	79 %	22
Grain	Strzegom Wiedeński	571.43 kg (23%)	79 %	10
Grain	Caramunich® typ I	196.19 kg (7.9%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	10952.38 g	60 min	6 %
Boil	Hersbrucker	4761.9 g	20 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Lager	Lager	Liquid	952380.95 ml	Wyeast Labs