

# Warsztatowe Marcowe

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **27**
- SRM **9.8**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **52 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **48 C**, Time **20 min**
- Temp **48 C**, Time **20 min**
- Temp **52 C**, Time **20 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **20 min**

## Mash step by step

- Heat up **39 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **20 min** at **48C**
- Keep mash **20 min** at **48C**
- Keep mash **20 min** at **52C**
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **20 min** at **78C**
- Sparge using **37.3 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (38.5%)	80 %	4
Grain	Strzegom Monachijski typ I	5 kg (38.5%)	79 %	16
Grain	Strzegom Karmel 150	1 kg (7.7%)	75 %	150
Grain	Strzegom Wiedeński	1 kg (7.7%)	79 %	10
Grain	Strzegom Pszeniczny	1 kg (7.7%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	150 g	60 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	100 g	1 min	4 %

## Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	10 g	Gozdawa

## Notes

- 45st - 20 min - wsyp sól monachijski  
48st - 20 min - wsyp sól pilznenski  
po 20 min dodaj sól wiedeński i pszeniczny i utrzymuj temp kolejne 20 min.  
52st - 20 min  
62st - 50 min  
72st - 30 min  
78st - 20 min  
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