

# Marcowo-Listopadowe

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- Gravity **12.9 BLG**
- ABV ---
- IBU **25**
- SRM **10.4**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.4 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **56.7C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **45 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (36%)	79 %	10
Grain	Strzegom Monachijski typ II	2 kg (36%)	79 %	22
Grain	Strzegom Pilzneński	1.5 kg (27%)	80 %	4
Grain	Strzegom Karmel 150	0.05 kg (0.9%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	60 g	60 min	3 %
Aroma (end of boil)	Hersbrucker	20 g	30 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11.5 g	Fermentis Division of S.I.Lesaffre