

Marcowo-Listopadowe

- Gravity **12.9 BLG**
- ABV ---
- IBU **27**
- SRM **10.6**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24.2 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 **18.7 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 **14.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	3 kg (54.5%)	79 %	10
Grain	Strzegom Monachijski typ II	1.3 kg (23.6%)	79 %	22
Grain	Strzegom Pilzneński	1 kg (18.2%)	80 %	4
Grain	Strzegom Karmel 150	0.1 kg (1.8%)	75 %	150
Grain	BESTMALZ - Best Pilsen	0.1 kg (1.8%)	80.5 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	50 g	65 min	3 %
Boil	Lublin (Lubelski)	25 g	55 min	4 %

Yeasts

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