

Marcowe

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **24**
- SRM **8.8**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **58 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 **14.1 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **10 min** at **58C**
- Keep mash **30 min** at **63C**
- Keep mash **45 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (42.6%)	79 %	10
Grain	Monachijski	2.5 kg (53.2%)	80 %	16
Grain	Strzegom Karmel 150	0.2 kg (4.3%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	28 g	60 min	7 %
Boil	Hersbrucker	15 g	10 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
S23	Lager	Dry	10 g	---