

Marcowe

- Gravity **13.6 BLG**
- ABV ---
- IBU **23**
- SRM **9.3**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **8 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **12 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **16.5 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **68 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **45 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2.5 kg (75.8%)	--- %	10
Grain	Strzegom Monachijski typ I	0.5 kg (15.2%)	--- %	16
Grain	Strzegom Karmel 30	0.1 kg (3%)	--- %	30
Grain	Acid Malt	0.1 kg (3%)	58.7 %	6
Grain	Oats, Flaked	0.1 kg (3%)	--- %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	hallertauer magnum	5 g	60 min	13.5 %
Boil	Hallertau comet	5 g	30 min	7 %
Boil	Hallertau comet	10 g	10 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M76 Bavarian Lager	Lager	Slant	500 ml	Mangrove Jack's

Extras

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

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	3 g	Boil	60 min
Water Agent	chlorek wapnia	4 g	Mash	---