

Marcowe

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **27**
- SRM **8.1**
- 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 **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19.4 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	1.75 kg (31.5%)	79 %	16
Grain	Strzegom Wiedeński	1.75 kg (31.5%)	79 %	10
Grain	Viking Pilsner malt	1.75 kg (31.5%)	82 %	4
Grain	Carahell	0.15 kg (2.7%)	77 %	26
Grain	crystal malt	0.15 kg (2.7%)	78 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.1 %
Boil	Tettnang	15 g	20 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	30 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Other	Mech Irlandzki	5 g	Boil	15 min
Other	Lactol	4 g	Mash	---