

Marcowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **7.6**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.8 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (49%)	81 %	4
Grain	Monachijski typ II 20-25 EBC Weyermann	2 kg (39.2%)	80 %	20
Grain	Strzegom Wiedeński	0.2 kg (3.9%)	79 %	10
Grain	Carahell	0.2 kg (3.9%)	77 %	26
Grain	Weyermann Caramunich 3	0.1 kg (2%)	76 %	150
Grain	zakwaszający	0.1 kg (2%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Saaz (Czech Republic)	20 g	20 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W 34/70	Lager	Slant	250 ml	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Fining	mech	7 g	Boil	15 min