

WaldeMar Marcowe

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **23**
- SRM **8.5**
- Style **Oktoberfest/Märzen**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **8 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **77 min**
- Evaporation rate **10 %/h**
- Boil size **23.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Munich Malt	1.65 kg (34.4%)	78 %	18
Grain	Viking Pilsner malt	1.31 kg (27.3%)	82 %	4
Grain	Viking Vienna Malt	1.45 kg (30.2%)	79 %	7
Grain	Weyermann - Carared	0.152 kg (3.2%)	75 %	45
Grain	Weyermann Carabohemian	0.115 kg (2.4%)	76 %	180
Grain	Acid Malt	0.071 kg (1.5%)	58.7 %	6
Grain	Słód Caramunich Typ II Weyermann	0.05 kg (1%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	7.7 %
Boil	Lublin (Lubelski)	30 g	20 min	2.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W 34/70	Lager	Dry	11.5 g	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	10 g	Boil	10 min