

## Marcowe BA

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **22**
- SRM **6.2**
- 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 **65 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **50 C**, Time **15 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.2 kg (58.2%)	81 %	5
Grain	Pilzneński	1 kg (18.2%)	81 %	4
Grain	Monachijski	0.8 kg (14.5%)	80 %	16
Grain	Caramunich® typ I	0.2 kg (3.6%)	73 %	80
Grain	Weyermann - Carapils	0.3 kg (5.5%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mount Hood	30 g	60 min	5.5 %
Boil	Relax	10 g	60 min	2.5 %
Boil	Relax	20 g	10 min	2.5 %

### Yeasts

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