

## BA Marcowe 13 blg

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **23**
- SRM **5.7**
- 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 **15 %/h**
- Boil size **27.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

### Steps

- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **15.9 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.2 kg (60.4%)	81 %	4
Grain	Strzegom Monachijski typ I	0.8 kg (15.1%)	79 %	16
Grain	Weyermann - Carapils	0.3 kg (5.7%)	78 %	4
Grain	Caramunich® typ I	0.2 kg (3.8%)	73 %	80
Grain	Strzegom Pilzneński	0.4 kg (7.5%)	80 %	4
Grain	Płatki owsiane	0.4 kg (7.5%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mount Hood	30 g	60 min	5.5 %
Boil	Relax	10 g	60 min	3.2 %
Aroma (end of boil)	Relax	20 g	15 min	3.2 %

### 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	whirlfloc	1.25 g	Boil	10 min