

## Marcowe 2

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **24**
- SRM **6.4**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	3.7 kg (61.7%)	80 %	4
Grain	Monachijski	1 kg (16.7%)	80 %	16
Grain	Strzegom Wiedeński	1 kg (16.7%)	79 %	10
Grain	BESTMALZ - Best Melanoidin	0.3 kg (5%)	75 %	71

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	8 %
Boil	Saaz (Czech Republic)	30 g	15 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	200 ml	Fermentum Mobile