

## Märzen 3

---

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **24**
- SRM **6.8**
- Style **Oktoberfest/Märzen**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **15 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **6 %/h**
- Boil size **28.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wiener Malz Best	3 kg (50%)	80 %	8
Grain	Münchener Malz Best	1.5 kg (25%)	78 %	20
Grain	Pilsner	1.2 kg (20%)	80.5 %	4
Grain	Carahell Best	0.3 kg (5%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	15 g	60 min	9.7 %
Boil	Marynka	20 g	15 min	9.1 %
Aroma (end of boil)	Lubelski	20 g	5 min	5.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 2206 Bavarian Lager	Lager	Liquid	300 ml	Wyeast Labs