

# Keller Märzen

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **6.1**
- Style **Dortmunder Export**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **15 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **6 %/h**
- Boil size **20.1 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **17.1 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **13.3 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **50 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield  | EBC |
|-------|---------------------|----------------|--------|-----|
| Grain | Pilsner             | 2.2 kg (57.9%) | 80.5 % | 4   |
| Grain | Pale Ale Best       | 1 kg (26.3%)   | 80 %   | 6   |
| Grain | Carared             | 0.3 kg (7.9%)  | 75 %   | 39  |
| Grain | Melanoidin BESTMALZ | 0.2 kg (5.3%)  | 75 %   | 71  |
| Grain | Rauch Malz Best     | 0.1 kg (2.6%)  | 77 %   | 6   |

## Hops

| Use for             | Name  | Amount | Time   | Alpha acid |
|---------------------|-------|--------|--------|------------|
| Boil                | Perle | 10 g   | 60 min | 9.7 %      |
| Boil                | Spalt | 30 g   | 15 min | 5 %        |
| Aroma (end of boil) | Spalt | 10 g   | 5 min  | 5 %        |

## Yeasts

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