

# Kellerbier

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **35**
- SRM **10.2**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **18.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **28.3 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 **45 C**, Time **0 min**
- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **15 min**
- Temp **100 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **0 min** at **45C**
- Keep mash **10 min** at **53C**
- Keep mash **15 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **76C**
- Keep mash **20 min** at **100C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Munich Typ II Weyermann	3 kg (46.2%)	77 %	22
Grain	Castle Malting - Château Arome	0.5 kg (7.7%)	77 %	100
Grain	Premium Pilsner Weyermann	2 kg (46.2%)	77 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	30 g	60 min	5.8 %
Boil	Hallertau Spalt Select	18 g	30 min	5.8 %
Boil	Hallertauer Mittelfrüh	25 g	30 min	2.9 %

Aroma (end of boil)	Hallertauer Mittelfrüh	23 g	10 min	2.9 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis W34/70	Lager	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min
Flavor	płatki dębowe jasnoopiekane	30 g	Secondary	5 day(s)