

# Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **4**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **36 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **1 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **36 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	7 kg (100%)	81 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	15 g	60 min	5 %
Boil	Lublin (Lubelski)	15 g	60 min	5 %
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Boil	Lublin (Lubelski)	15 g	15 min	5 %
Whirlpool	Hallertau Tradition	20 g	15 min	5 %
Whirlpool	Lublin (Lubelski)	20 g	15 min	5 %
Boil	Marynka	10 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis