

# German Pils

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **3.5**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	4 kg (95.2%)	80.5 %	4
Grain	Chit Malt	0.2 kg (4.8%)	50 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	10 g	80 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	30 min	4.5 %
Boil	Hallertau Mittelfruh	20 g	30 min	3 %
Boil	Saaz (Czech Republic)	10 g	5 min	4.5 %
Boil	Hallertau Mittelfruh	20 g	5 min	3 %
Whirlpool	Tomyski	50 g	15 min	2.8 %
Whirlpool	Hallertau Mittelfruh	10 g	15 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Novalager	Lager	Dry	11 g	lall
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