

## German Pilsner

- Gravity **11.2 BLG**
- ABV ---
- IBU **28**
- SRM **3.6**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **28.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **23.8 liter(s)**

### Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **19 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Słód Pilzneński Premium	4.5 kg (94.7%)	81 %	3
Grain	Castlemalting - Biscuit Malt	0.1 kg (2.1%)	79 %	50
Grain	Cara-Pils/Dextrine	0.15 kg (3.2%)	72 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	10 g	90 min	6.1 %
Boil	Hallertau Spalt Select	20 g	30 min	6.1 %
Aroma (end of boil)	Hallertau Spalt Select	10 g	20 min	6.1 %
Aroma (end of boil)	Hallertau Spalt Select	10 g	15 min	6.1 %
Aroma (end of boil)	Hallertau Spalt Select	10 g	5 min	6.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 2007 Pilsen Lager	Lager	Liquid	100 ml	Wyeast Labs

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlflock	1.25 g	Boil	10 min
Water Agent	Sól Epsom	3 g	Mash	65 min
Water Agent	Kwas fosforowy	2 g	Mash	65 min