

## #090 German Pils

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **30**
- SRM **3.6**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **20.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **24.5 liter(s)**

### Steps

- Temp **63 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **70 min** at **63C**
- Keep mash **10 min** at **78C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzniejszy	4.7 kg (95.9%)	80 %	4
Grain	Weyermann - Carapils	0.2 kg (4.1%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruh	50 g	60 min	3.8 %
Boil	Hallertau Mittelfruh	20 g	15 min	3.8 %
Boil	Tettnang	30 g	15 min	2.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	500 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc T	1.25 g	Boil	10 min
Other	pożywka dla drożdży Wyeast	3 g	Boil	10 min