

## PILS #14

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **38**
- SRM **2.9**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **550 liter(s)**
- Trub loss **5 %**
- Size with trub loss **583 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **622.7 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **360.5 liter(s)**
- Total mash volume **463.5 liter(s)**

### Steps

- Temp **45 C**, Time **15 min**

### Mash step by step

- Heat up **360.5 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **15 min** at **45C**
- Sparge using **365.2 liter(s)** of **76C** water or to achieve **622.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	103 kg (100%)	80.5 %	3.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	370 g	60 min	15.6 %
Whirlpool	Tettnanger	500 g	15 min	2.9 %
Whirlpool	Perle	1000 g	15 min	6.2 %
Whirlpool	Hallertau Mittelfruh	1500 g	15 min	3.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP830 - German Lager Yeast	Lager	Liquid	4000 ml	White Labs