

## # 176 Italian Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **41**
- SRM **3.8**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **15 %**
- Size with trub loss **19.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **67 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19.3 liter(s)** of strike water to **69.4C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	4.5 kg (95.7%)	81 %	4
Grain	Weyermann - Carapils	0.2 kg (4.3%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	25 g	60 min	4.5 %
Boil	Saaz (Czech Republic)	25 g	30 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	20 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	10 min	4.5 %
Boil	Saaz (Czech Republic)	40 g	1 min	4.5 %
Dry Hop	Tettnang	50 g	5 day(s)	4 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Lalbrew - Novalager	Lager	Dry	22 g	---