

## Pils 12

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **54**
- SRM **4.3**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **2 %**
- Size with trub loss **30.9 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **38.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **24.1 liter(s)** of **76C** water or to achieve **38.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6 kg (85.7%)	80 %	4
Grain	Strzegom Monachijski typ I	1 kg (14.3%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	36 g	60 min	10 %
Boil	Marynka	30 g	30 min	10 %
Boil	Lublin (Lubelski)	48 g	20 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	13.8 g	Fermentis