

## pils III

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **31**
- SRM **4.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **56 liter(s)**
- Trub loss **5 %**
- Size with trub loss **58.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **70.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **43.8 liter(s)**
- Total mash volume **56.3 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **43.8 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **39.5 liter(s)** of **76C** water or to achieve **70.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	10 kg (80%)	81 %	3
Grain	Monachijski	2.5 kg (20%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	60 g	60 min	10 %
Boil	Lublin (Lubelski)	120 g	10 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Slant	400 ml	Fermentis Division of S.I.Lesaffre