

## #5 Pils na szyszce Puławskiej

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **47**
- SRM **3.7**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **27.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (95.2%)	82 %	4
Grain	Viking Caramel	0.25 kg (4.8%)	78 %	10

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	30 g	60 min	7 %
Boil	Puławski	40 g	30 min	7 %
Aroma (end of boil)	Pulawski	40 g	5 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
34/70	Lager	Dry	11.5 g	fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	10 min