

## Polskie Ale #4

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **27**
- SRM **5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **52 C**, Time **25 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **25 min** at **52C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.5 kg (63.6%)	82 %	4
Grain	Viking Munich Malt	1.5 kg (27.3%)	78 %	18
Grain	Viking Wheat Malt	0.5 kg (9.1%)	83 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	50 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	10 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	3.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
kveik WLP518	Ale	Slant	40 ml	---

### Extras

Type	Name	Amount	Use for	Time
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Fining	Mech Irlandzki	3.5 g	Boil	10 min
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