

## PIPA (Polish IPA)

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **58**
- SRM **7.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **4 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **30.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

### Steps

- Temp **35 C**, Time **20 min**
- Temp **50 C**, Time **30 min**
- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **19.9 liter(s)** of strike water to **37.1C**
- Add grains
- Keep mash **20 min** at **35C**
- Keep mash **30 min** at **50C**
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **30.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2 kg (32.8%)	75 %	7
Grain	Weyermann - Vienna Malt	1 kg (16.4%)	78 %	8
Grain	Płatki owsiane	0.5 kg (8.2%)	83 %	3
Grain	Żytni	1 kg (16.4%)	82 %	8
Grain	Barley, Flaked	0.5 kg (8.2%)	70 %	4
Grain	Briess - 2 Row Carapils Malt	0.2 kg (3.3%)	75 %	3
Grain	Karmelowy Czerwony	0.5 kg (8.2%)	75 %	59
Liquid Extract	Bruntal ekstrakt słodowy pszeniczny	0.4 kg (6.6%)	80 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	30 g	60 min	13.7 %

Aroma (end of boil)	Lublin (Lubelski)	20 g	8 min	4 %
Aroma (end of boil)	marynka	30 g	8 min	8 %
Whirlpool	Lublin (Lubelski)	70 g	20 min	4 %
Whirlpool	Sybilla	40 g	20 min	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	20 ml	Fermentis