

## PIPA #31

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **53**
- SRM **5.2**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **0 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **75 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (89.4%)	79 %	6
Grain	Strzegom Pszeniczny	0.45 kg (8.1%)	81 %	6
Grain	Strzegom Karmel 30	0.14 kg (2.5%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Sybilla	20 g	60 min	7 %
Mash	Puławski	20 g	60 min	8.9 %
Mash	Cascade PL	20 g	60 min	5.5 %
Boil	lunga	20 g	60 min	12.9 %
Boil	Sybilla	12 g	15 min	7 %
Boil	Puławski	12 g	15 min	8.9 %
Boil	Cascade PL	12 g	15 min	5.5 %
Boil	Sybilla	12 g	5 min	7 %
Boil	Puławski	12 g	5 min	8.9 %
Boil	Cascade PL	12 g	5 min	5.5 %
Aroma (end of boil)	Sybilla	20 g	5 min	7 %

Aroma (end of boil)	Puławski	20 g	5 min	8.9 %
Aroma (end of boil)	Cascade PL	20 g	5 min	5.5 %
Dry Hop	Sybilla	20 g	5 day(s)	7 %
Dry Hop	Puławski	20 g	5 day(s)	8.9 %
Dry Hop	Cascade PL	20 g	5 day(s)	6 %