

## PIPA II

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **45**
- SRM **3.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.2 kg (51.6%)	80 %	5
Grain	Pilzński	1.8 kg (42.3%)	81 %	4
Grain	Strzegom Bursztynowy	0.1 kg (2.3%)	70 %	70
Grain	Pszeniczny	0.16 kg (3.8%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	25 g	55 min	8.9 %
Boil	Oktawia	25 g	30 min	7.1 %
Boil	zula	25 g	10 min	8 %
Dry Hop	zula	25 g	4 day(s)	8 %
Dry Hop	Puławski	25 g	4 day(s)	8.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis