

# pipa

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- Gravity **15.2 BLG**
- ABV ---
- IBU **60**
- SRM **5.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (92.6%)	80 %	5
Sugar	sacharoza	0.4 kg (7.4%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	60 g	40 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	4 %
Dry Hop	Lublin (Lubelski)	30 g	2 day(s)	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	---