

# Minipa

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **68**
- SRM **4.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	MEP Pale Ale	4.5 kg (84.1%)	79 %	6
Grain	Abbey Castle	0.25 kg (4.7%)	80 %	45
Grain	Platki owsiane	0.6 kg (11.2%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	13.2 %
Boil	Simcoe	20 g	0 min	13.2 %
Whirlpool	Centennial	50 g	30 min	10.5 %
Whirlpool	Simcoe	30 g	30 min	13.2 %
Whirlpool	Amarillo	20 g	30 min	9.5 %
Dry Hop	Simcoe	30 g	4 day(s)	13.2 %
Dry Hop	Mosaic	50 g	4 day(s)	10 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile