

# AIPA bez granatów

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **44**
- SRM **3.8**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21 liter(s)**

## Steps

- Temp **45 C**, Time **25 min**
- Temp **68 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **25 min** at **45C**
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	1.5 kg (30%)	81 %	3
Grain	Viking Pale Ale malt	1 kg (20%)	80 %	5
Grain	Żytni	1 kg (20%)	85 %	6
Grain	Pszeniczny	1 kg (20%)	85 %	4
Grain	Płatki pszeniczne	0.5 kg (10%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	70 min	15.5 %
Aroma (end of boil)	Simcoe	10 g	15 min	12.6 %
Aroma (end of boil)	Citra	10 g	15 min	13.2 %
Aroma (end of boil)	Simcoe	10 g	3 min	12.6 %
Aroma (end of boil)	Citra	10 g	3 min	13.2 %
Whirlpool	Simcoe	10 g	20 min	12.6 %
Whirlpool	Citra	10 g	20 min	13.2 %
Dry Hop	Simcoe	20 g	5 day(s)	12.6 %

Dry Hop	Citra	20 g	5 day(s)	13.2 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	150 ml	Fermentum Mobile