

# ŻYTNIA APA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **26**
- SRM **6.3**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.5 liter(s)**

## Steps

- Temp **45 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.9 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **20 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	2 kg (38.6%)	80.5 %	4
Grain	Żytni	2.5 kg (48.3%)	85 %	8
Adjunct	Płatki owsiane	0.125 kg (2.4%)	85 %	3
Grain	Strzegom Karmel 150	0.15 kg (2.9%)	75 %	150
Adjunct	płatki jęczmienne	0.4 kg (7.7%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Mosaic	10 g	15 min	10 %
Boil	Citra	10 g	0 min	12 %
Dry Hop	jaryllo	10 g	7 day(s)	12 %
Dry Hop	amarillo	10 g	7 day(s)	10 %
Dry Hop	Mosaic	10 g	5 day(s)	10 %
Dry Hop	Amarillo	10 g	5 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

## Notes

- ilości chmieli na zimno dotyczą warki 10 litrów  
*Feb 18, 2018, 9:15 PM*