

# APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **6.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.9 liter(s)**

## Mash information

- Mash efficiency **63 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (76.9%)	79 %	6
Grain	Strzegom Wiedeński	0.5 kg (7.7%)	79 %	10
Grain	Pszeniczny	0.5 kg (7.7%)	85 %	4
Grain	Crystal II 200	0.1 kg (1.5%)	71 %	200
Grain	Płatki owsiane	0.4 kg (6.2%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	60 min	12 %
Whirlpool	Amarillo	25 g	0 min	9.5 %
Whirlpool	Cascade	15 g	0 min	6 %
Dry Hop	Amarillo	25 g	3 day(s)	9.5 %
Dry Hop	Cascade	20 g	5 day(s)	6 %
Dry Hop	Cascade	15 g	3 day(s)	6 %
Dry Hop	Citra	20 g	3 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	30 ml	Fermentum Mobile

## Notes

- starter 1.5 L, dwie doby na mieszadle magnetycznym  
*Jan 31, 2019, 9:55 PM*