

# Wariacja z APA

- Gravity **13.8 BLG**
- ABV ---
- IBU **46**
- SRM **11.2**
- 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 **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **15 min** at **72C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (78.4%)	79 %	6
Grain	Strzegom Monachijski typ I	0.8 kg (15.7%)	79 %	16
Grain	Karmelowy Czerwony	0.2 kg (3.9%)	75 %	59
Grain	Strzegom Karmel 300	0.1 kg (2%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	60 min	15.5 %
Boil	Warrior	10 g	30 min	15.5 %
Boil	Cascade	10 g	10 min	6 %
Boil	Cascade	15 g	0 min	6 %
Dry Hop	Cascade	25 g	7 day(s)	6 %
Boil	East Kent Goldings	10 g	60 min	5.2 %
Boil	East Kent Goldings	10 g	10 min	5.2 %
Boil	East Kent Goldings	10 g	20 min	5.1 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
us-05	Ale	Dry	10 g	---