

# APA Enigma Single Hop

- Gravity **15.3 BLG**
- ABV ---
- IBU **58**
- SRM **12.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24.4 liter(s)**
- Total mash volume **30.5 liter(s)**

## Steps

- Temp **72 C**, Time **30 min**
- Temp **62 C**, Time **30 min**

## Mash step by step

- Heat up **24.4 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4 kg (65.6%)	80 %	4
Grain	Monachijski	1 kg (16.4%)	80 %	16
Grain	Strzegom Wiedeński	1 kg (16.4%)	79 %	10
Grain	Strzegom Karmel 600	0.1 kg (1.6%)	68 %	601

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Enigma (AUS)	10 g	60 min	17.2 %
Boil	Enigma (AUS)	23 g	25 min	17.2 %
Aroma (end of boil)	Enigma (AUS)	33 g	8 min	17.2 %

## Yeasts

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