

# APA Cascade Hops

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **45**
- SRM **5.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.5 kg (50%)	79 %	6
Grain	Słód monachijski	1.25 kg (25%)	79 %	15
Grain	Strzegom Pilzneński	1.25 kg (25%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	25 min	8.8 %
Boil	Cascade	30 g	25 min	7.1 %
Boil	Cascade	50 g	10 min	7.1 %
Dry Hop	Cascade	20 g	5 day(s)	7.1 %

## Yeasts

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