

# Cascade APA

- Gravity **12.4 BLG**
- ABV ---
- IBU **44**
- SRM **8.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **22.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.8 liter(s)**

## Steps

- Temp **70 C**, Time **1 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **22.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.02 kg (47.3%)	80 %	7
Grain	Strzegom Wiedeński	1.05 kg (24.6%)	79 %	10
Grain	Monachijski	0.9 kg (21.1%)	80 %	16
Grain	Amber Malt	0.3 kg (7%)	75 %	43

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	6 %
Boil	Cascade	20 g	30 min	6 %
Boil	Cascade	20 g	15 min	6 %
Boil	Cascade	20 g	6 min	6 %
Boil	Cascade	10 g	2 min	6 %
Dry Hop	Cascade	25 g	4 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	10 g	fermentis