

# American Cascade Pale Ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **41**
- SRM **8.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.5 liter(s)**

## Steps

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

## Mash step by step

- Heat up **16.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **21.5 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (46.5%)	90 %	5
Grain	Strzegom Wiedeński	1.25 kg (23.2%)	81 %	10
Grain	Monachijski	1.25 kg (23.2%)	82 %	16
Grain	Strzegom Karmel 150	0.38 kg (7.1%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	50 g	60 min	6 %
Boil	Cascade	12 g	30 min	6 %
Boil	Cascade	12 g	15 min	6 %
Boil	Cascade	30 g	10 min	6 %
Boil	Cascade	12 g	5 min	6 %
Boil	Cascade	12 g	1 min	6 %
Dry Hop	Cascade	30 g	4 day(s)	6 %

## Yeasts

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