

# Cascade Pale Ale

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- Gravity **12.6 BLG**
- ABV ---
- IBU **44**
- SRM **4.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **32.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	7 kg (100%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	40 g	60 min	12.5 %
Boil	Cascade	15 g	15 min	7.7 %
Boil	Cascade	25 g	0 min	7.7 %
Whirlpool	80-60 stopni Cascade	30 g	60 min	7.7 %
Dry Hop	Cascade	30 g	7 day(s)	7.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast 1450	Ale	Liquid	125 ml	Fermentis