

# Cascade PL Pale Ale

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- Gravity **12.4 BLG**
- ABV ---
- IBU **40**
- SRM **4.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (90.9%)	79 %	6
Grain	Płatki owsiane	0.5 kg (9.1%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	50 g	10 min	5.2 %
Boil	Amarillo	25 g	10 min	6 %
Whirlpool	Enigma (AUS)	25 g	15 min	18.3 %
Whirlpool	Amarillo	50 g	15 min	6 %
Whirlpool	Citra	25 g	15 min	13.2 %

## Yeasts

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