

# Cascade pale ale

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **70**
- SRM **5.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **33.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **28.6 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **70 min**
- Temp **74 C**, Time **12 min**

## Mash step by step

- Heat up **21.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **70 min** at **67C**
- Keep mash **12 min** at **74C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **33.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (69.9%)	80 %	5
Grain	Pilzneński	2 kg (28%)	81 %	4
Grain	Strzegom Karmel 150	0.15 kg (2.1%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Cascade PL	50 g	60 min	8 %
Boil	Cascade PL	50 g	30 min	8 %
Aroma (end of boil)	Citra	50 g	5 min	13 %
Dry Hop	Lublin (Lubelski)	50 g	---	14 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Fermentis