

# Cascade pale ale #14

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **33**
- SRM **2.4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pale Ale	2 kg (40%)	80 %	6
Grain	Strzegom Pale Ale	3 kg (60%)	79 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	6 %
Boil	Cascade	25 g	30 min	6 %
Boil	Cascade	45 g	0 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis