

# cascade apa

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- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **45**
- SRM **8.5**
- Style **American Pale Ale**

## 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 **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **64 C**, Time **15 min**
- Temp **67 C**, Time **45 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **67C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (46.5%)	80 %	5
Grain	Strzegom Wiedeński	1 kg (23.3%)	79 %	10
Grain	Strzegom Monachijski typ II	1 kg (23.3%)	79 %	22
Grain	Strzegom Karmel 150	0.3 kg (7%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	40 g	60 min	6 %
Boil	Cascade	10 g	30 min	6 %
Boil	Cascade	10 g	15 min	6 %
Boil	Cascade	25 g	10 min	6 %
Boil	Cascade	10 g	5 min	6 %
Boil	Cascade	10 g	1 min	6 %

## Yeasts

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