

# A Cascade PA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **62**
- SRM **7.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 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 **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg (46.5%)	79 %	6
Grain	Strzegom Wiedeński	1 kg (23.3%)	79 %	10
Grain	Monachijski	1 kg (23.3%)	80 %	16
Grain	Caramel/Crystal Malt - 40L	0.3 kg (7%)	74 %	79

## 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 %
Boil	Lublin (Lubelski)	30 g	60 min	4 %

## Yeasts

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