

# American Cascade Pale Ale 12°

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **36**
- SRM **5.4**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **28.2 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg (37.7%)	--- %	6
Grain	Strzegom Wiedeński	1 kg (18.9%)	79 %	10
Grain	Monachijski	1 kg (18.9%)	80 %	16
Grain	Strzegom Pilzneński	1 kg (18.9%)	--- %	4
Grain	Caramel/Crystal Malt - 10L	0.3 kg (5.7%)	75 %	20

## 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 %
Dry Hop	Cascade	25 g	7 day(s)	6 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Mangrove Jack's M44 US West Coast	Ale	Slant	30 ml	Mangrove Jack's