

# Cascade APA

- Gravity **12.4 BLG**
- ABV ---
- IBU **44**
- SRM **8.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **22.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.8 liter(s)**

## Steps

- Temp **70 C**, Time **1 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **22.9 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount          | Yield | EBC |
|-------|------------------------|-----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 2.02 kg (47.3%) | 80 %  | 7   |
| Grain | Strzegom Wiedeński     | 1.05 kg (24.6%) | 79 %  | 10  |
| Grain | Monachijski            | 0.9 kg (21.1%)  | 80 %  | 16  |
| Grain | Amber Malt             | 0.3 kg (7%)     | 75 %  | 43  |

## Hops

| Use for | Name    | Amount | Time     | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil    | Cascade | 30 g   | 60 min   | 6 %        |
| Boil    | Cascade | 20 g   | 30 min   | 6 %        |
| Boil    | Cascade | 20 g   | 15 min   | 6 %        |
| Boil    | Cascade | 20 g   | 6 min    | 6 %        |
| Boil    | Cascade | 10 g   | 2 min    | 6 %        |
| Dry Hop | Cascade | 25 g   | 4 day(s) | 6 %        |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 10 g   | fermentis  |