

# American Cascade Pale Ale

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **42**
- SRM **7.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **18.9 liter(s)**

## Steps

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

## Mash step by step

- Heat up **14.6 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.9 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 | Monachijski          | 1 kg (23.3%) | 80 %  | 16  |
| 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 %        |
| Aroma (end of boil) | Cascade | 10 g   | 1 min    | 6 %        |
| Dry Hop             | Cascade | 25 g   | 5 day(s) | 6 %        |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                                      |     |     |      |                 |
|--------------------------------------|-----|-----|------|-----------------|
| Mangrove Jack's<br>M44 US West Coast | Ale | Dry | 10 g | Mangrove Jack's |
|--------------------------------------|-----|-----|------|-----------------|