

# Single Hop - Cascade

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **42**
- SRM **6.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **20.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **25 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pale Ale - Weyermann     | 5 kg (74.1%)   | 85 %  | 7   |
| Grain | Monachijski - Weyermann  | 1 kg (14.8%)   | 80 %  | 15  |
| Grain | Pszeniczny - Weyermann   | 0.5 kg (7.4%)  | 85 %  | 4   |
| Grain | Karmelowy 150 - Strzegom | 0.25 kg (3.7%) | 75 %  | 120 |

## Hops

| Use for | Name    | Amount | Time     | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil    | Cascade | 50 g   | 60 min   | 7.1 %      |
| Boil    | Cascade | 25 g   | 30 min   | 7.1 %      |
| Boil    | Cascade | 15 g   | 20 min   | 7.1 %      |
| Boil    | Cascade | 10 g   | 10 min   | 7.1 %      |
| Dry Hop | Cascade | 100 g  | 5 day(s) | 7.1 %      |

## Yeasts

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

## Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Water Agent | Gips piwowarski | 15 g   | Mash    | 70 min |