

# Single Hop

- Gravity **15 BLG**
- ABV ---
- IBU **52**
- SRM **5.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.3 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **25 min** at **64C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

| Type  | Name                                      | Amount        | Yield | EBC  |
|-------|---|---------------|-------|------|
| Grain | Słód pilzneński Premium 2-5 EBC Weyermann | 4 kg (75.2%)  | 81 %  | 2.5  |
| Grain | Słód Carabelge 30-35 EBC Weyermann        | 0.32 kg (6%)  | 74 %  | 32.5 |
| Grain | Słód pszeniczny jasny 3-5 EBC Weyermann   | 0.2 kg (3.8%) | 82 %  | 3.5  |
| Grain | Słód pale ale 5,5-7,5 EBC Weyermann       | 0.8 kg (15%)  | 85 %  | 6.5  |

## Hops

| Use for             | Name  | Amount | Time     | Alpha acid |
|---------------------|-------|--------|----------|------------|
| Boil                | Citra | 15 g   | 60 min   | 13.5 %     |
| Boil                | Citra | 15 g   | 30 min   | 13.5 %     |
| Boil                | Citra | 20 g   | 15 min   | 13.5 %     |
| Aroma (end of boil) | Citra | 30 g   | 0 min    | 13.5 %     |
| Dry Hop             | Citra | 20 g   | 5 day(s) | 13.5 %     |

## Yeasts

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

## Extras

| Type   | Name          | Amount | Use for | Time   |
|--------|---------------|--------|---------|--------|
| Fining | Mech irlandzk | 5 g    | Boil    | 15 min |