

# APA

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **55**
- SRM **8.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.8 kg (76%) | 80 %  | 5   |
| Grain | Viking Vienna Malt   | 1 kg (20%)   | 79 %  | 7   |
| Grain | Strzegom Karmel 300  | 0.2 kg (4%)  | 70 %  | 299 |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| First Wort          | Warrior | 25 g   | 60 min   | 15.5 %     |
| Boil                | Cascade | 15 g   | 15 min   | 6 %        |
| Boil                | Cascade | 20 g   | 5 min    | 6 %        |
| Aroma (end of boil) | Cascade | 15 g   | 0 min    | 6 %        |
| Dry Hop             | Citra   | 25 g   | 3 day(s) | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |