

# APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **58**
- SRM **3.8**
- 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 **8 %/h**
- Boil size **24.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **11.3 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (66.7%)   | 80 %  | 5   |
| Grain | Strzegom Pszeniczny  | 0.5 kg (11.1%) | 81 %  | 6   |
| Grain | Strzegom Pilzneński  | 1 kg (22.2%)   | 80 %  | 4   |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Zeus       | 15 g   | 60 min | 15.7 %     |
| Boil                | Centennial | 15 g   | 10 min | 9.5 %      |
| Aroma (end of boil) | Zythos     | 20 g   | 0 min  | 15.7 %     |
| Boil                | Columbus   | 15 g   | 30 min | 12.4 %     |
| Boil                | Cascade    | 20 g   | 20 min | 7.1 %      |
| Aroma (end of boil) | Centennial | 15 g   | 0 min  | 9.5 %      |

## Yeasts

| Name                        | Type | Form  | Amount  | Laboratory |
|-----------------------------|------|-------|---------|------------|
| FM54 Gorączka kalifornijska | Ale  | Slant | 1500 ml | ---        |