

# APA 1

- Gravity **14.3 BLG**
- ABV ---
- IBU **49**
- SRM **7.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pszeniczny          | 0.5 kg (8.8%)  | 85 %  | 3   |
| Grain | Pale Ale            | 5 kg (88.5%)   | 80 %  | 5.5 |
| Grain | Strzegom Karmel 150 | 0.15 kg (2.7%) | 75 %  | 150 |

## Hops

| Use for | Name     | Amount | Time     | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil    | Columbus | 20 g   | 45 min   | 15 %       |
| Boil    | Columbus | 10 g   | 20 min   | 15 %       |
| Boil    | Citra    | 15 g   | 10 min   | 12.4 %     |
| Boil    | Equinox  | 15 g   | 10 min   | 13.4 %     |
| Boil    | Citra    | 15 g   | 0 min    | 12.4 %     |
| Dry Hop | Equinox  | 60 g   | 6 day(s) | 13.4 %     |
| Boil    | Equinox  | 15 g   | 0 min    | 13.4 %     |

## Yeasts

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