

# Apa

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński  | 4.5 kg (90%) | 80 %  | 4   |
| Grain | Abbey Malt Weyermann | 0.3 kg (6%)  | 75 %  | 45  |
| Grain | Karmelowy Czerwony   | 0.2 kg (4%)  | 75 %  | 59  |

## Hops

| Use for    | Name       | Amount | Time     | Alpha acid |
|------------|------------|--------|----------|------------|
| First Wort | Chinook    | 15 g   | 60 min   | 13 %       |
| Whirlpool  | Cascade PL | 50 g   | 15 min   | 5.2 %      |
| Whirlpool  | Citra      | 50 g   | 15 min   | 12 %       |
| Dry Hop    | Lemon drop | 50 g   | 3 day(s) | 4.6 %      |
| Dry Hop    | Citra      | 50 g   | 3 day(s) | 12 %       |

## Yeasts

| Name        | Type | Form   | Amount  | Laboratory |
|-------------|------|--------|---------|------------|
| Wyesat 1272 | Ale  | Liquid | 1500 ml | Starter    |