

# APA

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- Gravity **13.5 BLG**
- ABV ---
- IBU **43**
- SRM **9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale        | 5 kg (83.3%)   | 79 %  | 6   |
| Grain | Pilzneński               | 0.8 kg (13.3%) | 81 %  | 4   |
| Grain | Karmelowy żytni Strzegom | 0.2 kg (3.3%)  | 75 %  | 150 |

## Hops

| Use for    | Name    | Amount | Time     | Alpha acid |
|------------|---------|--------|----------|------------|
| First Wort | Marynka | 30 g   | 60 min   | 9.5 %      |
| Boil       | Cascade | 10 g   | 60 min   | 6.5 %      |
| Boil       | Cascade | 15 g   | 15 min   | 6.5 %      |
| Boil       | Cascade | 15 g   | 5 min    | 6.5 %      |
| Dry Hop    | Cascade | 50 g   | 4 day(s) | 6.5 %      |

## Yeasts

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