

## APA

- Gravity **12.4 BLG**
- ABV ---
- IBU **36**
- SRM **9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **29.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **68 C**, Time **90 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale   | 5 kg (90.9%)   | 79 %  | 6   |
| Grain | Strzegom Karmel 150 | 0.25 kg (4.5%) | 75 %  | 150 |
| Grain | Pszeniczny          | 0.25 kg (4.5%) | 79 %  | 4   |

### Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Chinook    | 20 g   | 60 min   | 13 %       |
| Aroma (end of boil) | Centennial | 15 g   | 15 min   | 10.5 %     |
| Aroma (end of boil) | Cascade    | 15 g   | 5 min    | 6 %        |
| Whirlpool           | Cascade    | 20 g   | 30 min   | 6 %        |
| Whirlpool           | Centennial | 20 g   | 30 min   | 10.5 %     |
| Dry Hop             | Centennial | 15 g   | 5 day(s) | 10.5 %     |
| Dry Hop             | Cascade    | 15 g   | 5 day(s) | 6 %        |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 250 ml | Fermentis  |