

## APA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **21 liter(s)**

### Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **21 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt     | 3.5 kg (83.3%) | 80 %  | 7   |
| Grain | Strzegom Monachijski typ I | 0.3 kg (7.1%)  | 79 %  | 16  |
| Grain | Płatki owsiane             | 0.4 kg (9.5%)  | 85 %  | 3   |

### Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Centennial | 23 g   | 60 min   | 9.7 %      |
| Aroma (end of boil) | Centennial | 7 g    | 0 min    | 9.7 %      |
| Aroma (end of boil) | Equinox    | 30 g   | 0 min    | 13.1 %     |
| Aroma (end of boil) | Citra      | 30 g   | 0 min    | 12 %       |
| Dry Hop             | Centennial | 30 g   | 4 day(s) | 9.7 %      |
| Dry Hop             | Citra      | 30 g   | 4 day(s) | 12 %       |

### Yeasts

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