

# Jałowcowa APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **33**
- SRM **9.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.5 kg (47.6%) | 80 %  | 5   |
| Grain | Viking Pilsner malt  | 2.5 kg (47.6%) | 82 %  | 4   |
| Grain | Strzegom Karmel 300  | 0.25 kg (4.8%) | 70 %  | 299 |

## Hops

| Use for | Name                   | Amount | Time     | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 10 g   | 60 min   | 15.5 %     |
| Boil    | Columbus/Tomahawk/Zeus | 15 g   | 15 min   | 15.5 %     |
| Boil    | Columbus/Tomahawk/Zeus | 15 g   | 5 min    | 15.5 %     |
| Dry Hop | Columbus/Tomahawk/Zeus | 25 g   | 5 day(s) | 15.5 %     |
| Dry Hop | Vic Secret             | 15 g   | 5 day(s) | 16.3 %     |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | ---        |

## Extras

| Type  | Name     | Amount | Use for   | Time     |
|-------|----------|--------|-----------|----------|
| Spice | jałowiec | 20 g   | Boil      | 5 min    |
| Spice | jałowiec | 20 g   | Secondary | 5 day(s) |
| Spice | goździki | 2 g    | Boil      | 5 min    |