

# #1 Centennial APA

- Gravity **12.7 BLG**
- ABV ---
- IBU **37**
- SRM **6.2**
- 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 **65 min**
- Evaporation rate **8 %/h**
- Boil size **28.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.3 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount         | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale  | 5 kg (93.8%)   | 79 %  | 6   |
| Grain | Strzegom Karmel 30 | 0.33 kg (6.2%) | 75 %  | 30  |

## Hops

| Use for   | Name       | Amount | Time     | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil      | Centennial | 20 g   | 60 min   | 9.4 %      |
| Boil      | Centennial | 20 g   | 30 min   | 9.4 %      |
| Boil      | Centennial | 20 g   | 5 min    | 9.4 %      |
| Whirlpool | Centennial | 40 g   | 50 min   | 9.4 %      |
| Dry Hop   | Centennial | 100 g  | 3 day(s) | 9.4 %      |

## Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 150 ml | Fermentum Mobile |

## Extras

| Type        | Name | Amount | Use for | Time   |
|-------------|------|--------|---------|--------|
| Water Agent | Gips | 4 g    | Mash    | 60 min |

|             |                   |     |      |        |
|-------------|-------------------|-----|------|--------|
| Water Agent | Kwas mlekowy 50 % | 6 g | Mash | 50 min |
| Water Agent | Chlorek wapnia    | 3 g | Mash | 60 min |