

# APA

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **44**
- SRM **9.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.54 liter(s) / kg**
- Mash size **34 liter(s)**
- Total mash volume **41.5 liter(s)**

## Steps

- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **34 liter(s)** of strike water to **77.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **2.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | soufflet pale ale           | 3 kg (40%)     | 80 %  | 7   |
| Grain | Carahell                    | 2.5 kg (33.3%) | 77 %  | 25  |
| Grain | weyermann-Monachijski typ I | 2 kg (26.7%)   | 80 %  | 14  |

## Hops

| Use for   | Name       | Amount | Time   | Alpha acid |
|-----------|------------|--------|--------|------------|
| Boil      | Centennial | 100 g  | 20 min | 8.6 %      |
| Whirlpool | citra      | 50 g   | 0 min  | 13.2 %     |
| Whirlpool | xo0932     | 100 g  | 0 min  | 4.8 %      |

## Yeasts

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