

# Sunny State APA

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **37**
- SRM **3.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **24.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **70 C**, Time **60 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **60 min** at **70C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount     | Yield | EBC |
|-------|----------------------------|------------|-------|-----|
| Grain | Pale Ale Maris Otter       | 4 kg (80%) | 79 %  | 4   |
| Grain | Weyermann pszeniczny jasny | 1 kg (20%) | 80 %  | 6   |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Amarillo   | 5 g    | 60 min | 7.1 %      |
| Boil                | Cascade    | 5 g    | 60 min | 6.9 %      |
| Boil                | Centennial | 5 g    | 60 min | 9.7 %      |
| Boil                | Citra      | 5 g    | 60 min | 13.8 %     |
| Boil                | Amarillo   | 5 g    | 30 min | 7.1 %      |
| Boil                | Cascade    | 5 g    | 30 min | 6.9 %      |
| Boil                | Centennial | 5 g    | 30 min | 9.7 %      |
| Boil                | Citra      | 5 g    | 30 min | 13.8 %     |
| Aroma (end of boil) | Cascade    | 5 g    | 2 min  | 6.9 %      |
| Aroma (end of boil) | Amarillo   | 5 g    | 2 min  | 7.1 %      |
| Dry Hop             | Amarillo   | 15 g   | ---    | 7.1 %      |
| Dry Hop             | Cascade    | 15 g   | ---    | 6.9 %      |

|         |            |      |     |        |
|---------|------------|------|-----|--------|
| Dry Hop | Centennial | 20 g | --- | 9.7 %  |
| Dry Hop | Citra      | 20 g | --- | 13.8 % |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |