

Sunny State APA

- 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 |