

APA

- Gravity **12.4 BLG**
- ABV ---
- IBU **62**
- SRM **11.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **5 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 2 kg (36.4%) | 79 % | 6 |
| Grain | Strzegom Pszeniczny | 1 kg (18.2%) | 81 % | 6 |
| Grain | Strzegom Karmel 150 | 0.5 kg (9.1%) | 75 % | 150 |
| Grain | Strzegom Pilzneński | 2 kg (36.4%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil | Chinook | 30 g | 60 min | 12.07 % |
| Boil | Chinook | 20 g | 15 min | 12.07 % |
| Boil | Cascade | 10 g | 15 min | 6.8 % |
| Boil | Pacific Jade | 10 g | 15 min | 12.4 % |
| Boil | Cascade | 10 g | 5 min | 6.8 % |
| Boil | Pacific Jade | 10 g | 5 min | 12.4 % |
| Boil | Ahtanum | 10 g | 5 min | 3.4 % |
| Boil | Cascade | 10 g | 0 min | 6.8 % |
| Boil | Ahtanum | 20 g | 0 min | 3.4 % |

| | | | | |
|---------|--------------|------|----------|--------|
| Boil | Pacific Jade | 10 g | 0 min | 12.4 % |
| Dry Hop | Pacific Jade | 20 g | 5 day(s) | 12.4 % |
| Dry Hop | Ahtanum | 20 g | 5 day(s) | 3.4 % |
| Dry Hop | Cascade | 20 g | 5 day(s) | 6.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |