

Cascade APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **44**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.9 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5.1 kg (90.3%) | 79 % | 6 |
| Grain | Strzegom Wiedeński | 0.3 kg (5.3%) | 79 % | 10 |
| Grain | Strzegom Karmel 30 | 0.25 kg (4.4%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Chinook | 30 g | 60 min | 12 % |
| Aroma (end of boil) | Cascade | 15 g | 15 min | 8.3 % |
| Aroma (end of boil) | Cascade | 20 g | 5 min | 8.3 % |
| Whirlpool | Cascade | 15 g | 5 min | 8.3 % |
| Dry Hop | Chinook | 15 g | 4 day(s) | 12 % |
| Dry Hop | Cascade | 40 g | 4 day(s) | 8.3 % |

Yeasts

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