

APA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **41**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (54.2%) | 80 % | 5 |
| Grain | Pszeniczny | 0.53 kg (9.6%) | 85 % | 4 |
| Grain | Pilzneński | 2 kg (36.2%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|-----------|------------|
| Boil | Chinook | 10 g | 60 min | 13 % |
| Boil | Citra | 20 g | 30 min | 12 % |
| Boil | Citra | 10 g | 10 min | 12 % |
| Boil | Mosaic | 20 g | 10 min | 10 % |
| Dry Hop | Chinook | 10 g | 10 day(s) | 13 % |
| Dry Hop | Mosaic | 10 g | 3 day(s) | 10 % |
| Dry Hop | Chinook | 10 g | 3 day(s) | 13 % |
| Dry Hop | Bravo | 30 g | 3 day(s) | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |