

APA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **36**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (66.7%) | 80 % | 5 |
| Grain | Pszeniczny | 0.5 kg (16.7%) | 85 % | 4 |
| Grain | Monachijski | 0.5 kg (16.7%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Citra | 8 g | 60 min | 12.3 % |
| Boil | Chinook | 12 g | 10 min | 12.8 % |
| Boil | Cascade | 20 g | 10 min | 6.9 % |
| Dry Hop | Chinook | 25 g | 3 day(s) | 12.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|---------|--------|------------|
| US-05 | Ale | Culture | 1 g | aaa |