

APA test

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **37**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (95.7%) | 80 % | 5 |
| Grain | Pszeniczny | 0.2 kg (4.3%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|----------|------------|
| Boil | lunga | 25 g | 45 min | 11 % |
| Boil | Wai-iti | 15 g | 10 min | 2 % |
| Boil | Nelson Sauvín | 15 g | 10 min | 11 % |
| Boil | Wai-iti | 15 g | 1 min | 4.1 % |
| Boil | Nelson Sauvín | 15 g | 1 min | 11 % |
| Dry Hop | Wai-iti | 20 g | 3 day(s) | 4.1 % |
| Dry Hop | Nelson Sauvín | 20 g | 3 day(s) | 11 % |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|----------------|--------|---------|-------|
| Water Agent | Gips | 6 g | Mash | 1 min |
| Water Agent | Chlorek wapnia | 1 g | Mash | 1 min |