

APA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **34**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **30 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pilsner malt | 2.04 kg (34.2%) | 82 % | 4 |
| Grain | Viking Pale Ale malt | 1.03 kg (17.3%) | 80 % | 5 |
| Grain | Oats, Flaked | 0.4 kg (6.7%) | 80 % | 2 |
| Grain | Viking Wheat Malt | 1.5 kg (25.1%) | 83 % | 5 |
| Grain | Viking Vienna Malt | 1 kg (16.8%) | 79 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 10 % |
| Aroma (end of boil) | Cascade | 10 g | 15 min | 6 % |
| Whirlpool | Cascade PL | 8 g | 15 min | 5.2 % |
| Boil | Magnat | 10 g | 60 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale | Slant | 250 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|-------|---------------|------|------|--------|
| Spice | Skórka pomelo | 70 g | Boil | 10 min |
|-------|---------------|------|------|--------|