

APA 13.05.18

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **57**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

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

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (90.9%) | 80 % | 5 |
| Grain | Carahell | 0.5 kg (9.1%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 45 min | 14 % |
| Aroma (end of boil) | Chinook | 15 g | 15 min | 13 % |
| Aroma (end of boil) | Simcoe | 15 g | 15 min | 13.2 % |
| Aroma (end of boil) | Chinook | 25 g | 5 min | 13 % |
| Aroma (end of boil) | Simcoe | 25 g | 5 min | 13.2 % |
| Dry Hop | Chinook | 25 g | 4 day(s) | 13 % |
| Dry Hop | Simcoe | 25 g | 4 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|-------|--------|------------|
| Fm50 | Wheat | Slant | 500 ml | --- |

Extras

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

| | | | | |
|--------|----------------|-----|------|--------|
| Fining | Mech irlandzki | 5 g | Boil | 10 min |
|--------|----------------|-----|------|--------|