

1. apa

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **31**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

Steps

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

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.8 kg (100%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------|--------|--------|------------|
| Boil | Citra | 7 g | 60 min | 12 % |
| Aroma (end of boil) | Citra | 28 g | 5 min | 12 % |