

DDH APA

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **56**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

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

Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.8 kg (95%) | 80 % | 5 |
| Grain | Carahell | 0.2 kg (5%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|-----------|------------|
| Boil | Pioneer | 30 g | 60 min | 8.8 % |
| Boil | Citra | 30 g | 5 min | 13.9 % |
| Boil | Amarillo | 30 g | 5 min | 9.8 % |
| Boil | Mosaic | 30 g | 5 min | 12.6 % |
| Dry Hop | Citra | 60 g | 10 day(s) | 13.9 % |
| Dry Hop | Amarillo | 60 g | 10 day(s) | 9.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |