

raaaa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **47**
- SRM **3.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **85 C**, Time **10 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **85C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (57.1%) | 80 % | 5 |
| Grain | Oats, Flaked | 1 kg (28.6%) | 80 % | 2 |
| Grain | Barley, Flaked | 0.5 kg (14.3%) | 70 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Chinook | 20 g | 45 min | 13 % |
| Boil | Chinook | 5 g | 15 min | 13 % |
| Aroma (end of boil) | Chinook | 5 g | 5 min | 13 % |
| Dry Hop | Equinox | 30 g | 3 day(s) | 13.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 10 g | fermentis |