

ipa

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **69**
- SRM **7.7**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (85.7%) | 80 % | 5 |
| Grain | cookie | 0.5 kg (7.1%) | 70 % | 49 |
| Grain | Carared | 0.5 kg (7.1%) | 75 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 20 min | 12.4 % |
| Boil | Columbus/Tomahawk/Zeus | 30 g | 15 min | 12.4 % |
| Boil | Centennial | 15 g | 15 min | 10.5 % |
| Boil | Ahtanum | 15 g | 15 min | 3.4 % |
| Boil | Simcoe | 15 g | 15 min | 13.2 % |
| Boil | Centennial | 15 g | 10 min | 10.5 % |
| Boil | Ahtanum | 15 g | 10 min | 3.4 % |
| Boil | Simcoe | 15 g | 10 min | 13.2 % |
| Dry Hop | Simcoe | 30 g | 3 day(s) | 13.2 % |
| Dry Hop | Ahtanum | 30 g | 3 day(s) | 3.4 % |
| Dry Hop | Centennial | 30 g | 3 day(s) | 10.5 % |