

QAPA #1

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **49**
- SRM **8.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **0 %**
- Size with trub loss **12.4 liter(s)**
- Boil time **45 min**
- Evaporation rate **12 %/h**
- Boil size **15.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **15.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale Malt | 2.3 kg (92%) | 80 % | 15 |
| Grain | CHÂTEAU ABBEY® | 0.2 kg (8%) | 78 % | 116 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------|--------|--------|------------|
| Boil | Chinook | 15 g | 30 min | 13 % |
| Boil | Mosaic (HBC 369) | 10 g | 15 min | 12.25 % |
| Boil | Citra | 10 g | 10 min | 12 % |
| Boil | Citra | 15 g | 0 min | 12 % |
| Boil | Mosaic (HBC 369) | 15 g | 0 min | 12.25 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|--------|--------|------------|
| FM53 Voss kveik | Ale | Liquid | 30 ml | FM |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------------|--------|---------|--------|
| Water Agent | Gips (Calcium Sulfate) | 5.27 g | Mash | 60 min |

| | | | | |
|-------------|--------------------------|--------|------|--------|
| Water Agent | Siarczan Magnezu (MgSO4) | 4.69 g | Mash | 60 min |
| Water Agent | Chlorek Wapnia | 2.88 g | Mash | 60 min |
| Water Agent | Phosphoric Acid 85% | 2.2 g | Mash | 60 min |
| Water Agent | Sól | 1.24 g | Mash | 60 min |