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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **70 C**, Time **15 min**

Mash step by step

- Heat up **8.4 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **70C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pilzneński | 0.8 kg (28.6%) | 81 % | 4 |
| Grain | Viking Pale Ale malt | 2 kg (71.4%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|----------|------------|
| Boil | Amarillo | 5 g | 50 min | 14.3 % |
| Boil | Nelson Sauvín | 10 g | 10 min | 11.2 % |
| Boil | Amarillo | 15 g | 5 min | 14.3 % |
| Boil | Nelson Sauvín | 10 g | 5 min | 11.2 % |
| Dry Hop | Nelson Sauvín | 30 g | 3 day(s) | 11.2 % |

Yeasts

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