

Warka 17

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **30**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **55 liter(s)**
- Trub loss **5 %**
- Size with trub loss **60.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **68.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **51 liter(s)**
- Total mash volume **68 liter(s)**

Steps

- Temp **63 C**, Time **20 min**
- Temp **68 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **51 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **30 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **34.3 liter(s)** of **76C** water or to achieve **68.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 17 kg (100%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------------|--------|----------|------------|
| Boil | Denali | 50 g | 20 min | 14 % |
| Whirlpool | Denali | 100 g | 20 min | 14 % |
| Dry Hop | Nelson Sauvín | 300 g | 3 day(s) | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale | Slant | 250 ml | White Labs |