

Chinook + Triumph 2020 ver. 1.0

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **63**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **9 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **16 %/h**
- Boil size **32 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23.3 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **70.5C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **32 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Viking Malt - Pale Ale | 5 kg (94.3%) | 80 % | 7 |
| Grain | Weyermann - Zakwaszający | 0.3 kg (5.7%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------------------|--------|--------|------------|
| Boil | Chinook (USA - 2020) | 10 g | 60 min | 12.1 % |
| Boil | Chinook (USA - 2020) | 25 g | 20 min | 12.1 % |
| Boil | Triumph (USA - 2020) | 25 g | 20 min | 9.1 % |
| Boil | Chinook (USA - 2020) | 25 g | 10 min | 12.1 % |
| Boil | Triumph (USA - 2020) | 25 g | 10 min | 9.1 % |
| Boil | Triumph (USA - 2020) | 50 g | 1 min | 9.1 % |
| Boil | Chinook (USA - 2020) | 40 g | 1 min | 12.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 23 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---|---------|---------|--------|
| Other | Woda zacieranie (Olsztyńska - Nagórki) | 18000 g | Mash | 71 min |
| Other | Woda wysładzanie (Olsztyńska - Nagórki) | 17000 g | Mash | 71 min |
| Fining | Whirlfloc T | 2 g | Boil | 5 min |