

tIPA time

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **55**
- SRM **6.4**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **19.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **19.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1 kg (22.2%) | 80 % | 5 |
| Grain | Maris Otter Pale Ale | 1 kg (22.2%) | 80 % | 7 |
| Grain | Clear Choice Pale Ale | 1 kg (22.2%) | 80 % | 7 |
| Grain | Strzegom Monachijski typ I | 1 kg (22.2%) | 79 % | 16 |
| Grain | Strzegom Wiedeński | 0.5 kg (11.1%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Mandarina Bavaria | 10 g | 60 min | 8.5 % |
| Boil | Citra | 10 g | 40 min | 14.2 % |
| Boil | Cascade | 10 g | 30 min | 6 % |
| Boil | Mandarina Bavaria | 10 g | 25 min | 8.5 % |
| Boil | Cascade | 10 g | 15 min | 6 % |
| Boil | Citra | 10 g | 10 min | 14.2 % |
| Boil | Mandarina Bavaria | 10 g | 5 min | 8.5 % |
| Dry Hop | Citra | 30 g | 5 day(s) | 14.2 % |
| Dry Hop | Mandarina Bavaria | 30 g | 5 day(s) | 8.5 % |

| | | | | |
|---------|---------|------|----------|-----|
| Dry Hop | Cascade | 30 g | 2 day(s) | 6 % |
|---------|---------|------|----------|-----|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 10 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------------|--------|-----------|----------|
| Flavor | Earl Grey (50% warki) | 30 g | Secondary | 2 day(s) |