

# Tropicales

- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **22**
- SRM **5.4**
- Style **Premium American Lager**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **44.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **40 liter(s)**
- Total mash volume **53.3 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **40 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **44.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 10 kg (75%)   | 80 %  | 5   |
| Grain | Viking Pilsner malt  | 1.33 kg (10%) | 82 %  | 4   |
| Grain | Weyermann - Carapils | 1 kg (7.5%)   | 78 %  | 4   |
| Grain | Viking Wheat Malt    | 1 kg (7.5%)   | 83 %  | 5   |

## Hops

| Use for             | Name    | Amount  | Time     | Alpha acid |
|---------------------|---------|---------|----------|------------|
| Boil                | Warrior | 20 g    | 60 min   | 15.5 %     |
| Boil                | Galaxy  | 10 g    | 15 min   | 15 %       |
| Boil                | Mosaic  | 10 g    | 10 min   | 10 %       |
| Aroma (end of boil) | Galaxy  | 33.33 g | 1 min    | 15 %       |
| Dry Hop             | Galaxy  | 33.33 g | 7 day(s) | 15 %       |
| Dry Hop             | Mosaic  | 33.33 g | 5 day(s) | 10 %       |
| Dry Hop             | Galaxy  | 33.33 g | 3 day(s) | 15 %       |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|              |     |     |         |           |
|--------------|-----|-----|---------|-----------|
| Safale US-05 | Ale | Dry | 16.67 g | Fermentis |
|--------------|-----|-----|---------|-----------|

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Fining      | mech irlandzki  | 1.67 g | Boil    | 15 min |
| Water Agent | gips piwowarski | 1.67 g | Mash    | 60 min |