

# Milkshake Mango APA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **34**
- SRM **3.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **11.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 2.8 kg (59.6%) | 80 %   | 5   |
| Grain | Oats, Flaked         | 0.8 kg (17%)   | 80 %   | 2   |
| Grain | Weyermann - Carapils | 0.3 kg (6.4%)  | 78 %   | 4   |
| Sugar | Milk Sugar (Lactose) | 0.8 kg (17%)   | 76.1 % | 0   |

## Hops

| Use for   | Name    | Amount | Time   | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil      | Chinook | 10 g   | 30 min | 11.2 %     |
| Boil      | Galaxy  | 15 g   | 5 min  | 15 %       |
| Boil      | Cascade | 8 g    | 5 min  | 8.1 %      |
| Whirlpool | Galaxy  | 35 g   | 15 min | 15 %       |
| Whirlpool | Cascade | 20 g   | 15 min | 8.1 %      |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name        | Amount | Use for   | Time      |
|--------|-------------|--------|-----------|-----------|
| Flavor | Pulpa mango | 1700 g | Secondary | 14 day(s) |