

# Mango milkshake ipa

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **64**
- SRM **4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **70 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **70 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **34.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (71.4%) | 80 %  | 5   |
| Grain | Płatki pszeniczne    | 1 kg (14.3%) | 85 %  | 3   |
| Grain | Płatki owsiane       | 1 kg (14.3%) | 85 %  | 3   |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 26 g   | 60 min | 13.7 %     |
| Boil                | Chinook                | 26 g   | 30 min | 11.1 %     |
| Boil                | Citra                  | 21 g   | 15 min | 13.5 %     |
| Boil                | Cascade PL             | 20 g   | 15 min | 7.6 %      |
| Boil                | Cascade PL             | 12 g   | 5 min  | 7.6 %      |
| Aroma (end of boil) | Citra                  | 16 g   | 0 min  | 13.5 %     |

## Yeasts

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

## Extras

| Type   | Name              | Amount | Use for   | Time     |
|--------|-------------------|--------|-----------|----------|
| Fining | Mech irlandzki    | 5 g    | Boil      | 15 min   |
| Flavor | Skórka pomarańczy | 100 g  | Boil      | 10 min   |
| Flavor | Pulpa z mango     | 2500 g | Secondary | 7 day(s) |
| Flavor | Laktoza           | 500 g  | Boil      | 15 min   |
| Flavor | Skórka pomarańczy | 50 g   | Secondary | 7 day(s) |

## Notes

- Wyszło 24,5 litra, 15,5 brix.  
*Jan 19, 2019, 4:59 PM*