

Mango milkshake ipa

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **67**
- SRM **4.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 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 **17.7 liter(s)** of **76C** water or to achieve **31.7 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) |