

MANGO MILKSHAKE IPA

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **33**
- SRM **4.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **20 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 (64.9%) | 80 % | 5 |
| Grain | Płatki owsiane | 1 kg (13%) | 60 % | 3 |
| Grain | Płatki pszeniczne | 1 kg (13%) | 60 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.7 kg (9.1%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | lunga | 40 g | 30 min | 11 % |
| Boil | Marynka | 10 g | 10 min | 10 % |
| Boil | Ahtanum | 30 g | 10 min | 5 % |
| Dry Hop | Citra | 25 g | 4 day(s) | 12 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 25 g | 4 day(s) | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------|--------|-----------|----------|
| Flavor | Pulpa z mango | 2500 g | Secondary | 7 day(s) |