

# Milk Shake IPA

- Gravity **14.7 BLG**
- ABV ---
- IBU **55**
- SRM **3.7**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.4 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

## Fermentables

| Type    | Name                 | Amount        | Yield  | EBC |
|---------|----------------------|---------------|--------|-----|
| Sugar   | Milk Sugar (Lactose) | 0.5 kg (7.7%) | 76.1 % | 0   |
| Grain   | Pale ale             | 5 kg (76.9%)  | 80 %   | 4   |
| Adjunct | Płatki owsiane       | 1 kg (15.4%)  | 85 %   | 3   |

## Hops

| Use for | Name                   | Amount | Time     | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil    | Simcoe                 | 10 g   | 60 min   | 13.2 %     |
| Boil    | Mosaic                 | 20 g   | 30 min   | 10 %       |
| Boil    | Citra                  | 30 g   | 30 min   | 12 %       |
| Boil    | Citra                  | 30 g   | 5 min    | 12 %       |
| Dry Hop | Mosaic                 | 40 g   | 7 day(s) | 10 %       |
| Dry Hop | Columbus/Tomahawk/Zeus | 20 g   | 7 day(s) | 15.5 %     |
| Dry Hop | Citra                  | 40 g   | 7 day(s) | 12 %       |

## Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 125 ml | Fermentum Mobile |

## Extras

| Type   | Name   | Amount | Use for   | Time |
|--------|--------|--------|-----------|------|
| Flavor | Ananas | 2000 g | Secondary | ---  |