

# Milk Shake IPA

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **45**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 3 kg (63.8%)   | 80 %   | 5   |
| Grain | Strzegom Pszeniczny  | 0.8 kg (17%)   | 81 %   | 6   |
| Grain | Płatki pszeniczne    | 0.4 kg (8.5%)  | 85 %   | 3   |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (10.6%) | 76.1 % | 0   |

## Hops

| Use for   | Name    | Amount | Time     | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil      | Polaris | 5 g    | 60 min   | 19 %       |
| Boil      | Summit  | 10 g   | 10 min   | 17 %       |
| Boil      | Chinook | 10 g   | 10 min   | 13 %       |
| Boil      | Citra   | 10 g   | 10 min   | 12 %       |
| Whirlpool | Chinook | 5 g    | 60 min   | 13 %       |
| Whirlpool | Citra   | 5 g    | 60 min   | 12 %       |
| Whirlpool | Summit  | 5 g    | 60 min   | 17 %       |
| Dry Hop   | Citra   | 5 g    | 5 day(s) | 12 %       |
| Dry Hop   | Chinook | 5 g    | 5 day(s) | 13 %       |

## Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

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

### Extras

| Type   | Name    | Amount | Use for   | Time     |
|--------|---------|--------|-----------|----------|
| Flavor | ananas  | 250 g  | Secondary | 5 day(s) |
| Flavor | mango   | 250 g  | Secondary | 5 day(s) |
| Flavor | papaja  | 250 g  | Secondary | 5 day(s) |
| Spice  | wanilia | 5 g    | Boil      | 5 min    |

### Notes

- Fermentacja w 18 stopniach. Schłodzić brzecznię do 16 stopni przed zadaniem drożdży. Utrzymywać 18 przez 5 dni, dwa ostatnie dni podnieść temperaturę na 20 stopni. Wyladzamy nie dłużej niż do 2BLG!  
*Dec 18, 2017, 12:44 PM*