

# MILKSHAKE ALE

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **7**
- SRM **3.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 4 kg (61.1%)   | 80 %   | 5   |
| Grain | Płatki owsiane       | 1.2 kg (18.3%) | 85 %   | 3   |
| Grain | Płatki pszeniczne    | 0.5 kg (7.6%)  | 85 %   | 3   |
| Sugar | Milk Sugar (Lactose) | 0.85 kg (13%)  | 76.1 % | 0   |

## Hops

| Use for   | Name      | Amount | Time     | Alpha acid |
|-----------|-----------|--------|----------|------------|
| Boil      | Iunga     | 5 g    | 60 min   | 11 %       |
| Boil      | El Dorado | 2 g    | 10 min   | 15 %       |
| Boil      | Cashmere  | 8 g    | 10 min   | 6.7 %      |
| Whirlpool | Citra     | 100 g  | 0 min    | 12 %       |
| Dry Hop   | Citra     | 50 g   | 2 day(s) | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 22 g   | Fermentis  |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |                 |     |      |        |
|-------------|-----------------|-----|------|--------|
| Fining      | Whirlfloc       | 1 g | Boil | 10 min |
| Water Agent | Chlorek Wapnia  | 3 g | Mash | 70 min |
| Water Agent | Gips Piwowarski | 3 g | Mash | 70 min |

## Notes

- W 4 dniu burzliwej dodane 2.25 kg mrozonych truskawek i 1 kg mrozonych wisni.  
*Mar 24, 2019, 11:09 PM*