

Milkshake IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **42**
- SRM **4.6**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **62 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **69.8C**
- Add grains
- Keep mash **80 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|--------|-----|
| Grain | Weyermann - Pilsner Malt | 3.5 kg (58.2%) | 81 % | 5 |
| Grain | Pszeniczny | 1 kg (16.6%) | 85 % | 4 |
| Grain | Oats, Flaked | 0.75 kg (12.5%) | 80 % | 2 |
| Grain | Karmelowy Jasny 30EBC | 0.25 kg (4.2%) | 75 % | 30 |
| Sugar | Milk Sugar (Lactose) | 0.51 kg (8.5%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Amarillo | 15 g | 60 min | 8.8 % |
| Boil | Fuggles | 10 g | 60 min | 4.5 % |
| Boil | Mosaic | 10 g | 45 min | 12 % |
| Boil | Fuggles | 10 g | 45 min | 4.5 % |
| Boil | Mosaic | 10 g | 15 min | 12 % |
| Boil | Amarillo | 10 g | 15 min | 8.8 % |
| Boil | Amarillo | 25 g | 0 min | 8.8 % |
| Boil | Mosaic | 30 g | 0 min | 12 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------------------|--------|-----------|-----------|
| Flavor | Wanilia (2 laski w whisky) | 10 g | Secondary | 10 day(s) |
| Flavor | Truskawki mrożone | 900 g | Secondary | 10 day(s) |