

## Milkshake IPA 2.0

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **60**
- SRM **3.8**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount          | Yield  | EBC |
|-------|---------------------------|-----------------|--------|-----|
| Grain | Strzegom Pilzneński       | 4.15 kg (69.2%) | 80 %   | 4   |
| Grain | Weyermann - Pale Ale Malt | 0.65 kg (10.8%) | 85 %   | 7   |
| Grain | Płatki owsiane            | 0.4 kg (6.7%)   | 85 %   | 3   |
| Sugar | Milk Sugar (Lactose)      | 0.8 kg (13.3%)  | 76.1 % | 0   |

### Hops

| Use for             | Name   | Amount | Time   | Alpha acid |
|---------------------|--------|--------|--------|------------|
| First Wort          | lunga  | 35 g   | 60 min | 9.5 %      |
| Boil                | Mosaic | 50 g   | 15 min | 11.4 %     |
| Aroma (end of boil) | Simcoe | 45 g   | 0 min  | 12.9 %     |
| Aroma (end of boil) | Mosaic | 50 g   | 0 min  | 11.4 %     |
| Whirlpool           | Citra  | 15 g   | 0 min  | 13.1 %     |
| Whirlpool           | Galaxy | 30 g   | 0 min  | 14.2 %     |

### Yeasts

| Name                     | Type | Form   | Amount | Laboratory  |
|--------------------------|------|--------|--------|-------------|
| Wyeast - American Ale II | Ale  | Liquid | 250 ml | Wyeast Labs |