

## #023 Milkshake

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **24**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **100 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (62.2%)	80 %	5
Grain	Strzegom Pszeniczny	0.5 kg (10.4%)	81 %	6
Grain	Płatki owsiane	0.4 kg (8.3%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.52 kg (10.8%)	76.1 %	0
Grain	Biscuit Malt	0.4 kg (8.3%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Amarillo	30 g	0 min	8.8 %
Boil	Amarillo	20 g	10 min	8.8 %
Boil	Magnum	15 g	50 min	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Other	truskawki mrożone	1800 g	Secondary	5 day(s)

Spice	skórka pomarańczy suszona	20 g	Boil	5 min
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## Notes

- Cukier wanilinowy do refermentacji  
*Mar 22, 2018, 8:56 PM*