

Orange Milk Stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **23**
- SRM **35.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **13.7 liter(s)**

Steps

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

Mash step by step

- Heat up **10.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom - Golden Ale	1 kg (30.8%)	80 %	11.5
Grain	Viking malt - Colorado Pale Base	0.6 kg (18.5%)	79 %	6
Grain	Castlemalting - Diastatyczny	0.5 kg (15.4%)	80 %	3
Grain	Castlemalting - Biscuit Malt	0.25 kg (7.7%)	77 %	50
Grain	Fawcett - Chocolate	0.15 kg (4.6%)	71.9 %	1200
Grain	Fawcett - Pszeniczny Czekoladowy	0.15 kg (4.6%)	72.7 %	1001
Grain	Strzegom - Czekoladowy	0.1 kg (3.1%)	68 %	400
Grain	Fawcett - Brown	0.1 kg (3.1%)	71.9 %	190
Grain	Oats, Flaked	0.2 kg (6.2%)	80 %	2
Sugar	Milk Sugar (Lactose)	0.2 kg (6.2%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	20 g	30 min	5.2 %

Boil	Cascade PL	10 g	20 min	5.2 %
Boil	Hellertau Mittelfrüh	10 g	10 min	4.9 %
Aroma (end of boil)	Hellertau Mittelfrüh	40 g	0 min	4.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgorza	Ale	Slant	150 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	Sok z pomarańczy	1000 g	Secondary	7 day(s)
Flavor	Zest z pomarańczy	100 g	Boil	15 min
Spice	Cynamon	7.25 g	Secondary	7 day(s)