

milk stout pomarańcza

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **30**
- SRM **34.7**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.1 kg (67.2%)	80 %	5
Grain	Strzegom Karmel 600	0.2 kg (3.3%)	68 %	601
Grain	Płatki pszeniczne	0.5 kg (8.2%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.7 kg (11.5%)	76.1 %	0
Grain	Fawcett - Pale Chocolate	0.3 kg (4.9%)	71 %	1150
Grain	Pszeniczny Czekoladowy	0.3 kg (4.9%)	73 %	1001

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	10.3 %
Boil	Izabella	10 g	5 min	6.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
s04	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Spice	skórka słodkiej pomarańczy	40 g	Boil	15 min