

## 29. "Mleczny start" - Milk Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **37.8**
- Style **American 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 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **68 C**, Time **50 min**
- Temp **68 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **10 min** at **68C**
- Keep mash **50 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (55.6%)	79 %	6
Grain	Strzegom Pilzneński	1 kg (18.5%)	80 %	4
Grain	strzegom jęczmień prażony	0.3 kg (5.6%)	--- %	---
Grain	Strzegom Czekoladowy ciemny	0.4 kg (7.4%)	68 %	1200
Grain	Strzegom Barwiący	0.3 kg (5.6%)	68 %	1300
Grain	Płatki owsiane błyskawiczne	0.4 kg (7.4%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	40 g	60 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar BRY-97	Ale	Dry	11 g	danstar

### Extras

Type	Name	Amount	Use for	Time
Other	laktoza	0.5 g	Boil	10 min

## Notes

- uwarzone 17-03-2018r.

Słody ciemne wsypać w 50 min po zrobieniu próby jodowej.  
*May 19, 2018, 12:00 AM*