

Świąteczny Milk Stout

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **30**
- SRM **31.1**
- 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 **5 %/h**
- Boil size **25.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Strzegom Pale Ale | 4 kg (62%) | 83 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (7.8%) | 75 % | 30 |
| Grain | Płatki owsiane | 0.4 kg (6.2%) | 85 % | 3 |
| Grain | Strzegom Pszeniczny | 0.5 kg (7.8%) | 81 % | 6 |
| Grain | Jęczmień palony | 0.3 kg (4.7%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (3.9%) | 68 % | 1200 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (7.8%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 35 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|--------------------|--------|---------|--------|
| Spice | goździki | 5 g | Boil | 10 min |
| Spice | cynamon | 8 g | Boil | 10 min |
| Spice | gałka muszkatałowa | 3 g | Boil | 10 min |
| Spice | anyż | 4 g | Boil | 10 min |
| Flavor | skórki pomarańczy | 60 g | Boil | 10 min |
| Spice | imbir świeży | 22 g | Boil | 10 min |
| Fining | wirfloc | 2 g | Boil | 10 min |