

Swarożyc - Milk Stout

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **29**
- SRM **29.6**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|------|
| Grain | Castle Malting Pilszeński | 4.1 kg (64.5%) | 80 % | 3 |
| Grain | Strzegom Karmel 30 | 0.22 kg (3.5%) | 75 % | 30 |
| Grain | Weyermann Caramunich 3 | 0.23 kg (3.6%) | 76 % | 150 |
| Grain | Briess - Chocolate Malt | 0.23 kg (3.6%) | 60 % | 690 |
| Grain | Bestmalz - Special X | 0.28 kg (4.4%) | 75 % | 600 |
| Grain | Extra black | 0.13 kg (2%) | 65 % | 1400 |
| Grain | Płatki pszeniczne | 0.47 kg (7.4%) | 60 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.7 kg (11%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------------------------|-----|--------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale | Liquid | 400 ml | White Labs |
|--------------------------------|-----|--------|--------|------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------|--------|-----------|-----------|
| Spice | Wanilia | 3 g | Secondary | 14 day(s) |
| Flavor | Łuska kakaowa | 150 g | Secondary | 14 day(s) |