

## Milk Stout

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **31**
- SRM **35.4**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **90 min**
- Evaporation rate **8 %/h**
- Boil size **26.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **19.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount          | Yield  | EBC  |
|-------|----------------------------|-----------------|--------|------|
| Grain | Viking Pale Ale            | 3 kg (46.4%)    | 80 %   | 5    |
| Grain | Strzegom Czekoladowy jasny | 0.2 kg (3.1%)   | 68 %   | 400  |
| Grain | Carafa II                  | 0.25 kg (3.9%)  | 70 %   | 812  |
| Grain | Carafa III                 | 0.25 kg (3.9%)  | 70 %   | 1034 |
| Grain | Strzegom Karmel 150        | 0.3 kg (4.6%)   | 75 %   | 150  |
| Grain | Strzegom Karmel 300        | 0.25 kg (3.9%)  | 70 %   | 299  |
| Grain | Weyermann Specjal W        | 0.25 kg (3.9%)  | 68 %   | 300  |
| Grain | Monachijski                | 0.5 kg (7.7%)   | 80 %   | 16   |
| Grain | Płatki owsiane prażone     | 0.7 kg (10.8%)  | 85 %   | 3    |
| Sugar | Laktoza                    | 0.77 kg (11.9%) | 76.1 % | 0    |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 25 g   | 60 min | 13 %       |

### Yeasts

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

| Name        | Type | Form | Amount  | Laboratory |
|-------------|------|------|---------|------------|
| Safale S-04 | Ale  | Dry  | 12.78 g | Safale     |

### Extras

| Type   | Name                    | Amount | Use for   | Time     |
|--------|-------------------------|--------|-----------|----------|
| Flavor | Wiórki kokosowe prażone | 500 g  | Secondary | 7 day(s) |
| Flavor | Espresso                | 200 g  | Secondary | 7 day(s) |
| Spice  | 3 Laski wanilii         | 15 g   | Secondary | 7 day(s) |

### Notes

- Płatki owsiane prażone 150 stopni/30min na dzień przed warzeniem.  
Wiórki prażone 150 stopni/15min i odsączone na ręcznikach papierowych  
Espresso ostudzić do temp pokojowej :)  
*Jun 19, 2017, 10:23 PM*