

## 13/02/2018 - Milk Stout - 21.12.2018

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **27**
- SRM **26.9**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **1250 liter(s)**
- Trub loss **0 %**
- Size with trub loss **1250 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **1402.5 liter(s)**

### Mash information

- Mash efficiency **85.6 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **875 liter(s)**
- Total mash volume **1125 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **875 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **76C**
- Sparge using **777.5 liter(s)** of **76C** water or to achieve **1402.5 liter(s)** of wort

### Fermentables

| Type  | Name              | Amount       | Yield | EBC  |
|-------|-------------------|--------------|-------|------|
| Grain | Pale Ale          | 175 kg (70%) | 80 %  | 6    |
| Grain | Monachijski Jasny | 50 kg (20%)  | 80 %  | 16   |
| Grain | Czekoladowy       | 12.5 kg (5%) | 75 %  | 1050 |
| Grain | Jęczmień palony   | 12.5 kg (5%) | 75 %  | 1150 |

### Hops

| Use for   | Name        | Amount | Time   | Alpha acid |
|-----------|-------------|--------|--------|------------|
| Boil      | USA Jaryllo | 800 g  | 90 min | 13.2 %     |
| Whirlpool | PL lunga    | 2500 g | 5 min  | 11.7 %     |

### Yeasts

| Name         | Type | Form  | Amount  | Laboratory |
|--------------|------|-------|---------|------------|
| Safale US-05 | Ale  | Slant | 5000 ml | ---        |