

Xmass Milk Stout

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **30**
- SRM **30.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 3.8 kg (70.4%) | 80 % | 5 |
| Grain | Monachijski | 0.7 kg (13%) | 80 % | 16 |
| Grain | Czekoladowy | 0.2 kg (3.7%) | 1 % | 788 |
| Grain | Strzegom pszenica prażona | 0.2 kg (3.7%) | 1 % | 1000 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (9.3%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 7.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 100 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------------|--------|-----------|----------|
| Spice | przyprawy korzenne | 15 g | Secondary | 7 day(s) |