

Milkstout

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **25**
- SRM **28.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **62 C**, Time **10 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **10 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (63.8%) | 80 % | 7 |
| Grain | Weyermann - Pilsner Malt | 0.5 kg (10.6%) | 81 % | 5 |
| Grain | Caramunich® typ I | 0.35 kg (7.4%) | 73 % | 80 |
| Grain | Carafa II | 0.15 kg (3.2%) | 70 % | 812 |
| Grain | Jęczmień palony | 0.3 kg (6.4%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.4 kg (8.5%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 15 g | 60 min | 4 % |
| Boil | Marynka | 15 g | 60 min | 10 % |

Yeasts

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

| | | | | |
|-------------|-----|-----|------|--------|
| Safale S-04 | Ale | Dry | 10 g | Safale |
|-------------|-----|-----|------|--------|

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|---------------|----------------|-------------|
| Other | laktoza | 350 g | Boil | 15 min |