

Milks

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **28**
- SRM **39.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **32.5 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **26 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 3 kg (42.9%) | 80 % | 5 |
| Grain | Viking Munich Malt | 2 kg (28.6%) | 78 % | 18 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (3.6%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.25 kg (3.6%) | 55 % | 985 |
| Grain | Strzegom pszenica prażona | 0.25 kg (3.6%) | 70 % | 1000 |
| Grain | Żyto prażone | 0.25 kg (3.6%) | 65 % | 1000 |
| Grain | Płatki owsiane | 0.5 kg (7.1%) | 85 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (7.1%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Challenger | 30 g | 60 min | 7 % |
| Boil | Lomik | 30 g | 40 min | 3.8 % |
| Boil | Cascade | 10 g | 15 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 10 ml | Fermentis |