

MS19

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **47**
- SRM **41.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|---------------|--------|------|
| Grain | Viking Pale Ale malt | 3 kg (50%) | 80 % | 5 |
| Grain | Pszeniczny | 1 kg (16.7%) | 85 % | 4 |
| Grain | Caraaroma | 1 kg (16.7%) | 78 % | 400 |
| Grain | Strzegom pszenica prażona | 0.5 kg (8.3%) | 70 % | 1000 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (8.3%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 50 g | 50 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |