

Mili stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **24**
- SRM **31.1**
- 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 **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **68 C**, Time **75 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **75 min** at **68C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Briess - Pale Ale Malt | 4 kg (69%) | 80 % | 7 |
| Grain | Strzegom Karmel 150 | 0.5 kg (8.6%) | 75 % | 150 |
| Grain | Caramunich® typ I | 0.2 kg (3.4%) | 73 % | 80 |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (5.2%) | 68 % | 1200 |
| Grain | Strzegom Barwiący | 0.1 kg (1.7%) | 68 % | 1300 |
| Sugar | Milk Sugar (Lactose) | 0.7 kg (12.1%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 15 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11.5 g | Fermentis |