

## 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