

Stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **20**
- SRM **34.6**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (52.2%)	80 %	5
Grain	Strzegom Karmel 600	0.25 kg (4.3%)	68 %	601
Grain	Strzegom Pilzneński	2 kg (34.8%)	80 %	4
Grain	Jęczmień palony	0.25 kg (4.3%)	55 %	985
Grain	Strzegom Barwiący	0.25 kg (4.3%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %

Yeasts

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