

Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **44.1**
- Style **Dry 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 **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (62.5%)	80 %	4
Grain	Strzegom Karmel 600	0.2 kg (3.1%)	68 %	601
Grain	Jęczmień palony	0.4 kg (6.2%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.4 kg (6.2%)	68 %	1200
Grain	Płatki owsiane	0.5 kg (7.8%)	60 %	3
Grain	Viking Pale Ale malt	0.9 kg (14.1%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	11.5 %
Boil	Marynka	30 g	10 min	6.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Fermentis