

## Stout z resztek :)

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **35**
- SRM **38.7**
- 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 **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **66 C**, Time **5 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **5 min** at **66C**
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.5 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	3.3 kg (61.2%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (9.3%)	79 %	16
Grain	Jęczmień palony	0.4 kg (7.4%)	55 %	985
Grain	Strzegom Czekoladowy jasny	0.3 kg (5.6%)	68 %	400
Grain	Carafa II	0.14 kg (2.6%)	70 %	812
Grain	Strzegom Karmel 150	0.25 kg (4.6%)	75 %	150
Grain	Strzegom Karmel 300	0.25 kg (4.6%)	70 %	299
Grain	Special W	0.25 kg (4.6%)	73 %	300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	42 g	60 min	8 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Safale S-04	Ale	Dry	11.5 g	---