

## 15 RIS

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **75**
- SRM **68.9**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **13 %/h**
- Boil size **21.8 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **31.6 liter(s)**
- Total mash volume **39.5 liter(s)**

### Steps

- Temp **72 C**, Time **1 min**
- Temp **69 C**, Time **90 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **31.6 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **90 min** at **69C**
- Keep mash **1 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **-1.9 liter(s)** of **76C** water or to achieve **21.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (35.7%)	80 %	4
Grain	Strzegom Monachijski typ II	2 kg (23.8%)	79 %	22
Grain	Słód pszeniczny Bestmalz	0.6 kg (7.1%)	82 %	5
Grain	Fawcett - Pszeniczny Czekoladowy	0.7 kg (8.3%)	73 %	1001
Grain	Carafa III	0.3 kg (3.6%)	70 %	1300
Grain	Płatki owsiane	1.3 kg (15.5%)	85 %	3
Liquid Extract	ekstrakt słodowy ciemny Bruntal	0.5 kg (6%)	90 %	621

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	50 g	60 min	15.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale US-05	Ale	Dry	20 g	---
--------------	-----	-----	------	-----

## Notes

- CARAFA III dodawana na koniec zacierania (10min)  
*Dec 21, 2019, 1:24 AM*