

## #48 RIS

- Gravity **22.9 BLG**
- ABV **10.4 %**
- IBU **70**
- SRM **61.4**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **15.5 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **12 %/h**
- Boil size **19.2 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **18.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **19.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (62.4%)	78 %	5
Grain	Fawcett - Pszenciczny Czekoladowy	0.1 kg (1.6%)	73 %	1001
Grain	Strzegom Czekoladowy jasny	0.3 kg (4.7%)	68 %	400
Grain	caramel aromatic	0.1 kg (1.6%)	75 %	180
Grain	Jęczmień palony	0.05 kg (0.8%)	55 %	985
Grain	Strzegom Monachijski typ II	0.45 kg (7%)	79 %	22
Grain	Abbey Malt Weyermann	0.25 kg (3.9%)	75 %	45
Grain	Strzegom Czekoladowy ciemny	0.5 kg (7.8%)	68 %	1200
Grain	Płatki owsiane	0.5 kg (7.8%)	65 %	3
Liquid Extract	Barwiący	0.02 kg (0.3%)	55 %	9000
Sugar	cukier	0.14 kg (2.2%)	95 %	1

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	20 g	60 min	12.5 %

Boil	Sybilla	40 g	60 min	6 %
Boil	Sybilla	25 g	20 min	6 %
Boil	East Kent Goldings	25 g	20 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	23 g	FM

## Notes

- Sprzątanie magazynu!  
*May 24, 2019, 10:00 PM*