

# ES RIS

---

- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **53**
- SRM **38.7**
- Style **Russian Imperial 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 **29.4 liter(s)**
- Total mash volume **39.2 liter(s)**

## Steps

- Temp **44 C**, Time **0 min**
- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **40 min**

## Mash step by step

- Heat up **29.4 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **0 min** at **44C**
- Keep mash **90 min** at **68C**
- Keep mash **40 min** at **78C**
- Sparge using **5.7 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	6.5 kg (66.3%)	80 %	5
Grain	Strzegom Monachijski typ II	2 kg (20.4%)	79 %	22
Grain	Jęczmień palony	0.4 kg (4.1%)	55 %	985
Grain	Strzegom Karmel 600	0.2 kg (2%)	68 %	601
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2%)	68 %	1200
Grain	Barley, Flaked	0.5 kg (5.1%)	70 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	30 g	60 min	7.1 %
Boil	Oktawia	30 g	45 min	7.1 %
Boil	Oktawia	30 g	30 min	7.1 %
Boil	Oktawia	30 g	5 min	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	400 ml	Safale

## Notes

- ciemne słody dodane w połowie mashoutu  
*Jan 5, 2021, 1:18 PM*