

## #13 RIS

- Gravity **29.8 BLG**
- ABV **14.7 %**
- IBU **9**
- SRM **89.8**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **15 min**

### Mash step by step

- Heat up **25.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **77C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (31.3%)	80 %	5
Grain	Strzegom Karmel 600	1 kg (8.9%)	68 %	601
Grain	Jęczmień palony	1 kg (8.9%)	55 %	985
Grain	Strzegom Karmel 30	1 kg (8.9%)	75 %	30
Grain	Płatki owsiane	1 kg (8.9%)	85 %	3
Grain	Strzegom Czekoladowy ciemny	1 kg (8.9%)	68 %	1200
Sugar	glukoza	1 kg (8.9%)	--- %	---
Liquid Extract	WES ekstrakt słodowy jasny	1.7 kg (15.2%)	80 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	60 min	4 %
Boil	Marynka	20 g	20 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Liquid	600 ml	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	kawa (1000ml)	100 g	Boil	50 min
Flavor	płatki dębowe mocno palone marynowane w Whisky	200 g	Secondary	90 day(s)
Flavor	kawa	300 g	Secondary	90 day(s)