

Ris kris

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **42**
- SRM **57.4**
- 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 **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **29.2 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **69 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **22.4 liter(s)** of strike water to **56.9C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **69C**
- Keep mash **15 min** at **78C**
- Sparge using **9.7 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	5 kg (58.8%)	80 %	5
Grain	Monachijski	1 kg (11.8%)	80 %	16
Grain	Strzegom Karmel 150	0.2 kg (2.4%)	75 %	150
Grain	Briess - Black Malt	0.2 kg (2.4%)	55 %	985
Liquid Extract	ekstrakt słodowy ciemny Bruntal	1.7 kg (20%)	90 %	621
Grain	Czekoladowy	0.2 kg (2.4%)	60 %	788
Grain	Viking melanoidynowy	0.2 kg (2.4%)	75 %	60

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Challenger	50 g	20 min	5.8 %
Boil	First Gold	50 g	60 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis