

# Ris

- Gravity **24.9 BLG**
- ABV **11.6 %**
- IBU **57**
- SRM **34.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **8 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **8 %/h**
- Boil size **25.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **33.3 liter(s)**
- Total mash volume **42.3 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **33.3 liter(s)** of strike water to **73.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **0.8 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7.3 kg (76.8%)	80 %	5
Grain	Pale ale cookie	0.25 kg (2.6%)	80 %	---
Grain	Weyermann - Carapils	0.3 kg (3.2%)	78 %	4
Grain	Chocolate Malt (UK)	0.45 kg (4.7%)	73 %	887
Grain	Jęczmień palony	0.1 kg (1.1%)	55 %	985
Grain	Strzegom Barwiący	0.1 kg (1.1%)	68 %	1300
Grain	Płatki owsiane	0.5 kg (5.3%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.5 kg (5.3%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	35 g	60 min	13 %
Boil	Liberty	25 g	60 min	4.5 %
Boil	Sorachi Ace	25 g	30 min	10 %
Boil	Śruta kakaowa prażona	100 g	10 min	1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	22 g	Safale