

## RIS v3

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- Gravity **27 BLG**
- ABV **12.9 %**
- IBU **62**
- SRM **59.8**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **180 min**
- Evaporation rate **20 %/h**
- Boil size **40 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.8 liter(s)**
- Total mash volume **42.4 liter(s)**

### Steps

- Temp **64 C**, Time **90 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **31.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **40 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7.5 kg (70.8%)	80 %	5
Grain	Monachijski	1 kg (9.4%)	80 %	16
Grain	Fawcett - Crystal	0.5 kg (4.7%)	70 %	160
Grain	pszeniczny czekoladowy	0.8 kg (7.5%)	73 %	1001
Grain	Jęczmień palony	0.8 kg (7.5%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	100 g	60 min	11 %