R.I.S.

- Gravity **24.2 BLG**
- ABV **11.2 %**
- IBU **84**
- SRM **55.8**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **120 min**
- Evaporation rate **15 %/h**
- Boil size **23.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.9 liter(s)**
- Total mash volume **37.2 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **90 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **27.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **90 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **4.8 liter(s)** of **76C** water or to achieve **23.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(53.8%)*	80 %	5
Grain	Briess - Munich Malt 20L	2 kg *(21.5%)*	74 %	39
Grain	CaraMunich Type 2 - Weyermann	0.3 kg *(3.2%)*	71.7 %	120
Grain	Jęczmień palony	0.2 kg *(2.2%)*	55 %	985
Grain	Chocolate Malt (UK)	0.3 kg *(3.2%)*	73 %	887
Grain	Weyermann - Dehusked Carafa III	0.5 kg *(5.4%)*	70 %	1024
Grain	Płatki owsiane	1 kg *(10.8%)*	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	10 min	7 %
Boil	Columbus/Tomahawk/Zeus	60 g	60 min	14.9 %

Yeasts

Name	Type	Form	Amount	Laboratory

Safale S-04	Ale	Slant	200 ml	Safale