

## ris 1

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- Gravity **22.2 BLG**
- ABV **10 %**
- IBU **91**
- SRM **41.3**
- 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 **120 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28.5 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.8 kg (45.2%)	85 %	7
Grain	Weyermann - Vienna Malt	2.2 kg (26.2%)	81 %	8
Grain	Fawcett - Crystal	0.4 kg (4.8%)	70 %	140
Grain	Special B	0.3 kg (3.6%)	75 %	350
Grain	Weyermann - Carafa I	0.4 kg (4.8%)	70 %	690
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (2.4%)	73 %	1001
Grain	Jęczmień palony	0.2 kg (2.4%)	55 %	985
Sugar	Cukier kandyzowany	0.9 kg (10.7%)	100 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galena	70 g	60 min	12 %
Boil	Crystal	70 g	60 min	4.5 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Safale US-05	Ale	Slant	300 ml	Fermentis