

## #14 RIS

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- Gravity **24 BLG**
- ABV **11 %**
- IBU **104**
- SRM **42.7**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **14.7 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **18.6 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **2.3 liter(s)** of **76C** water or to achieve **14.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (72.6%)	80 %	5
Grain	Platki pszeniczne	0.5 kg (8.1%)	60 %	3
Grain	Viking Carabody malt	0.3 kg (4.8%)	75 %	8
Grain	Special B Malt	0.3 kg (4.8%)	65.2 %	315
Grain	Weyermann - Chocolate Wheat	0.3 kg (4.8%)	74 %	788
Grain	Castle Cafe	0.3 kg (4.8%)	75.5 %	480

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %