

## ris

---

- Gravity **29.6 BLG**
- ABV **14.5 %**
- IBU **30**
- SRM **50.5**
- 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 **27.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **40.6 liter(s)**
- Total mash volume **54.1 liter(s)**

### Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **40.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **0.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	6.8 kg (50.3%)	80 %	4
Grain	Weyermann - Pale Wheat Malt	2.3 kg (17%)	85 %	5
Grain	Chit Malt	2.3 kg (17%)	50 %	2
Grain	Special B Malt	0.34 kg (2.5%)	65.2 %	315
Grain	Briess - Roasted Barley	0.453 kg (3.3%)	55 %	591
Grain	Fawcett - Pale Chocolate	0.226 kg (1.7%)	71 %	600
Grain	Caramel/Crystal Malt - 120L	0.113 kg (0.8%)	72 %	236
Grain	Caramel/Crystal Malt - 60L	0.226 kg (1.7%)	74 %	118
Grain	Weyermann - Carafa III	0.317 kg (2.3%)	70 %	1024
Grain	Strzegom Barwiący	0.226 kg (1.7%)	68 %	1300
Grain	Munich Malt	0.226 kg (1.7%)	80 %	18

### Hops

<b>Use for</b>	<b>Name</b>	<b>Amount</b>	<b>Time</b>	<b>Alpha acid</b>
Mash	Styrian Golding	10 g	90 min	3.6 %
First Wort	Styrian Golding	5 g	60 min	3.6 %
Boil	Styrian Golding	10 g	60 min	3.6 %
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	30 min	15.5 %
Aroma (end of boil)	Fuggles	50 g	0 min	4.5 %

## **Yeasts**

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
WLP090 - San Diego Super Yeast	Ale	Slant	10000 ml	White Labs