

## 2 x Żytni

- Gravity **28.7 BLG**
- ABV **14 %**
- IBU **71**
- SRM **63.2**
- 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 **60 min**
- Evaporation rate **8 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **39 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**

### Mash step by step

- Heat up **26 liter(s)** of strike water to **76.3C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	8 kg (61.5%)	81 %	6
Grain	Płatki pszeniczne	1.8 kg (13.8%)	85 %	3
Grain	Karmelowy żytni Strzegom	1.2 kg (9.2%)	75 %	150
Grain	Weyermann - Chocolate Rye	1 kg (7.7%)	20 %	493
Grain	Jęczmień palony	1 kg (7.7%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	80 g	60 min	15.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale