

High RISK!

- Gravity **25.3 BLG**
- ABV **11.8 %**
- IBU **70**
- SRM **57.5**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **9 %**
- Size with trub loss **18.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **12 %/h**
- Boil size **25 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **31.9 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	6 kg (65.9%)	80 %	8
Grain	Pszeniczny	1 kg (11%)	85 %	4
Grain	Carahell	0.4 kg (4.4%)	77 %	26
Grain	Carafa	0.4 kg (4.4%)	70 %	664
Grain	Carafa III special	0.4 kg (4.4%)	70 %	1034
Grain	Jęczmień palony	0.4 kg (4.4%)	55 %	985
Grain	Special B Castle	0.5 kg (5.5%)	70 %	350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	120 g	50 min	7.1 %
Boil	Marynka	80 g	5 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	500 ml	Fermentum Mobile