

# RIS

- Gravity **24 BLG**
- ABV **11 %**
- IBU **51**
- SRM **39.6**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **120 min**
- Evaporation rate **15 %/h**
- Boil size **32.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **37.8 liter(s)**
- Total mash volume **48.3 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **37.8 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **32.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (47.6%)	79 %	6
Grain	Strzegom Monachijski typ II	3 kg (28.6%)	79 %	22
Grain	Strzegom Pszeniczny	1 kg (9.5%)	81 %	6
Grain	Strzegom Karmel 300	0.25 kg (2.4%)	70 %	299
Grain	Strzegom Czekoladowy 400	0.25 kg (2.4%)	68 %	400
Grain	Strzegom Czekoladowy 1200	0.25 kg (2.4%)	68 %	1202
Grain	Strzegom Jęczmień Prażony	0.25 kg (2.4%)	55 %	985
Grain	Castle Cafe	0.25 kg (2.4%)	75.5 %	480
Grain	Płatki owsiane	0.25 kg (2.4%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	120 min	8.4 %
Boil	Warrior	30 g	20 min	14.6 %

Aroma (end of boil)	Lublin (Lubelski)	25 g	10 min	5.7 %
Aroma (end of boil)	Lublin (Lubelski)	25 g	5 min	5.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	300 ml	Fermentum Mobile

## Notes

- Jęczmień Prażony na ostatnie 10 min zacierania.  
Fermentacja w 17°C.  
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