

RIS-Putin

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **69**
- SRM **45**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **20.8 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **31.6 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **23.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **5 liter(s)** of **76C** water or to achieve **20.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (50.6%)	80 %	5
Grain	Strzegom Pilzneński	1 kg (12.7%)	80 %	4
Grain	Viking Wheat Malt	1 kg (12.7%)	83 %	5
Grain	Monachijski	1 kg (12.7%)	80 %	16
Grain	Strzegom Karmel 600	0.4 kg (5.1%)	68 %	601
Grain	Jęczmień palony	0.3 kg (3.8%)	55 %	985
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (2.5%)	73 %	1001

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Boil	Marynka	20 g	60 min	8.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

FM13 Irlandzkie Ciemności	Ale	Slant	250 ml	Fermentum Mobile
---------------------------	-----	-------	--------	------------------

Extras

Type	Name	Amount	Use for	Time
Water Agent	Kreda piwowarska	4 g	Mash	115 min