

MORIS

- Gravity **22.2 BLG**
- ABV **10 %**
- IBU **54**
- SRM **35.2**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **29.8 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **71 C**, Time **30 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **21.3 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **71C**
- Keep mash **10 min** at **75C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.7 kg (55.2%)	80 %	5
Grain	Strzegom Monachijski typ II	2.32 kg (27.2%)	79 %	22
Grain	viking cookie	0.5 kg (5.9%)	80 %	40
Grain	Strzegom Czekoladowy jasny	0.3 kg (3.5%)	68 %	400
Grain	Karmelowy żytni Strzegom	0.3 kg (3.5%)	75 %	150
Grain	Black Barley (Roast Barley)	0.1 kg (1.2%)	55 %	985
Grain	Black (Patent) Malt	0.1 kg (1.2%)	55 %	985
Grain	Carafa III	0.1 kg (1.2%)	70 %	1034
Grain	Strzegom pszenica prażona	0.1 kg (1.2%)	70 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	15 min	4 %
Boil	Marynka	60 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis