

# Kampania Mroku

- Gravity **24 BLG**
- ABV ---
- IBU **36**
- SRM **74.1**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **75 C**, Time **0 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **58.4C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **75C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2.5 kg (31.3%)	79 %	22
Grain	Strzegom Pilzneński	1.7 kg (21.3%)	80 %	4
Grain	Pszeniczny	0.7 kg (8.8%)	85 %	4
Grain	Smoked Malt	0.5 kg (6.3%)	80 %	18
Grain	Strzegom Karmel 150	0.3 kg (3.8%)	75 %	150
Grain	Strzegom Karmel 300	0.25 kg (3.1%)	70 %	299
Grain	Czekoladowy	0.05 kg (0.6%)	60 %	1100
Grain	Strzegom Barwiący	0.1 kg (1.3%)	68 %	1300
Grain	Płatki owsiane	0.2 kg (2.5%)	85 %	3
Liquid Extract	ekstrakt słodowy ciemny Bruntal	1.7 kg (21.3%)	90 %	500

## Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	Marynka	40 g	60 min	9.4 %
Boil	Lublin (Lubelski)	40 g	20 min	3.8 %
Boil	Lublin (Lubelski)	15 g	0 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	100 ml	---
Saflager W 34/70	Lager	Liquid	200 ml	Starter