

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 |
|---------|------|--------|------|------------|
|---------|------|--------|------|------------|

| | | | | |
|------|-------------------|------|--------|-------|
| 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 |