

imperial salty rye porter + KAKAOWIEC + Płatki dębowe z rumu

- Gravity **25.1 BLG**
- ABV **11.7 %**
- IBU **44**
- SRM **37**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **10.8 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 | 3 kg (34.5%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ II | 1 kg (11.5%) | 79 % | 22 |
| Grain | Żytni | 1.5 kg (17.2%) | 85 % | 8 |
| Grain | Karmelowy żytni Strzegom | 0.7 kg (8%) | 75 % | 150 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (5.7%) | 68 % | 400 |
| Grain | Carafa III | 0.3 kg (3.4%) | 70 % | 1300 |
| Liquid Extract | WES ekstrakt słodowy jasny | 1.7 kg (19.5%) | 80 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Admiral | 35 g | 60 min | 15.7 % |
| Boil | Fuggles | 25 g | 15 min | 5.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 300 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------|--------|-----------|-----------|
| Other | łuska ryżowa | 300 g | Mash | 10 min |
| Flavor | ziarna kakaowca | 150 g | Secondary | 10 day(s) |
| Flavor | sól himalajska | 20 g | Boil | 5 min |