# N°3 ROBUS PORTET

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **26**
- SRM **21.7**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **38.4 liter(s)**

## Mash information

- Mash efficiency **99 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.4 liter(s)**

## Steps

- Temp **62 C**, Time **210 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **23.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **210 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **22.8 liter(s)** of **76C** water or to achieve **38.4 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Viking Pale Ale malt | 3 kg *(38.2%)* | 80 % | 5 |
| Grain | Viking Red Ale | 2 kg *(25.5%)* | 75 % | 70 |
| Grain | Płatki owsiane | 1 kg *(12.7%)* | 85 % | 3 |
| Grain | Strzegom Monachijski typ I | 0.5 kg *(6.4%)* | 79 % | 16 |
| Grain | Fawcett - Brown | 0.5 kg *(6.4%)* | 72 % | 180 |
| Grain | Biscuit Malt | 0.25 kg *(3.2%)* | 79 % | 45 |
| Grain | Fawcett - Pale Chocolate | 0.25 kg *(3.2%)* | 71 % | 600 |
| Grain | Fawcett - Crystal | 0.25 kg *(3.2%)* | 70 % | 160 |
| Grain | Strzegom pszenica prażona | 0.1 kg *(1.3%)* | 70 % | 1000 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Marynka | 50 g | 75 min | 8 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| US-05 | Ale | Slant | 400 ml | --- |