

Robust

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **32**
- SRM **20.6**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **30.2 liter(s)**

Steps

- Temp **62 C**, Time **60 min**

Mash step by step

- Heat up **22.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 3 kg (39.7%) | 79 % | 22 |
| Grain | Viking Pale Ale malt | 3 kg (39.7%) | 80 % | 5 |
| Grain | Fawcett - Brown | 1 kg (13.2%) | 72 % | 180 |
| Grain | Castlemalting melanoidynowy | 0.25 kg (3.3%) | 81 % | 40 |
| Grain | Fawcett - Dark Crystal | 0.3 kg (4%) | 71 % | 300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | First Gold | 50 g | 60 min | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|---------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 1300 ml | Fermentum Mobile |