

robert

- Gravity **18.7 BLG**
- ABV ---
- IBU **30**
- SRM **32.6**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **10.1 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------------|-----------------------------|-----------------|-------|------|
| Grain | Strzegom Pilzneński | 0.89 kg (24%) | 80 % | 4 |
| Grain | Carafa II | 0.09 kg (2.4%) | 70 % | 812 |
| Grain | Caraaroma | 0.3 kg (8.1%) | 78 % | 400 |
| Grain | Viking Pale Ale malt | 2 kg (54%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (2.7%) | 68 % | 1200 |
| Dry Extract | gozdawa jasny | 0.127 kg (3.4%) | --- % | --- |
| Grain | Płatki pszeniczne | 0.2 kg (5.4%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Aurora | 20 g | 40 min | 8.5 % |
| Boil | Aurora | 15 g | 5 min | 8.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 90 ml | Safale |