

Tęgi

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **26.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **70 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **70C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 4 kg (75.5%) | 80 % | 5 |
| Grain | Carafa II | 0.1 kg (1.9%) | 70 % | 1100 |
| Grain | Carabohemian | 0.5 kg (9.4%) | 70 % | 200 |
| Grain | Strzegom Barwiący | 0.2 kg (3.8%) | 68 % | 1300 |
| Grain | Płatki owsiane | 0.5 kg (9.4%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | English Golding | 20 g | 10 min | 4.8 % |
| Boil | Marynka | 20 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |