

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