

Brązowe Portki

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **38**
- SRM **24.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **32.2 liter(s)**
- Total mash volume **41.4 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **32.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **77C**
- Sparge using **25.1 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (65.2%)	80 %	5
Grain	Brown Malt (British Chocolate)	2 kg (21.7%)	70 %	128
Grain	Weyermann - Caraamber	0.7 kg (7.6%)	75 %	65
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (5.4%)	73 %	1001

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	50 g	60 min	13.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	1500 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	10 min