

Brązowy Porter

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **22**
- SRM **25**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (66.7%)	82 %	5
Grain	Amber Malt	0.8 kg (13.3%)	85 %	120
Grain	Caraaroma	0.6 kg (10%)	80 %	400
Grain	Pale Amber	0.5 kg (8.3%)	72 %	70
Grain	Weyermann - Chocolate Rye	0.1 kg (1.7%)	30 %	493

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	60 min	4 %
Boil	Marynka	10 g	60 min	10 %
Boil	Lublin (Lubelski)	10 g	20 min	4 %
Boil	Marynka	10 g	20 min	10 %
Boil	Marynka	10 g	0 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - Lalbrew London English-style	Ale	Dry	11 g	Lallemand