

Brudna Pała

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **30**
- SRM **4.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **1 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (75%)	80 %	5
Grain	Wheat, Flaked	0.5 kg (8.3%)	77 %	4
Grain	Rice, Flaked	0.5 kg (8.3%)	70 %	2
Grain	Oats, Flaked	0.5 kg (8.3%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	5 min	15.8 %
Whirlpool	Citra	50 g	20 min	12 %
Whirlpool	Cascade	50 g	20 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP066 - London Fog	Ale	Slant	300 ml	White Labs