

Porzeczkowe

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **31**
- SRM **51.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **25.8 liter(s)**
- Total mash volume **34.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **25.8 liter(s)** of strike water to **75.7C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	5.56 kg (66.8%)	81 %	4
Grain	Płatki owsiane	1.67 kg (20.1%)	85 %	3
Grain	Chocolate Malt (US)	0.7 kg (8.4%)	60 %	1200
Grain	Carafa III	0.39 kg (4.7%)	70 %	1034

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galena	30 g	60 min	12 %