

Black PIP(A)

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **79**
- SRM **45.5**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **14.2 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **10.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6.1 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.5 kg (70.6%)	80 %	7
Grain	Pilzneński	0.54 kg (15.3%)	81 %	4
Grain	Jęczmień palony	0.3 kg (8.5%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.2 kg (5.6%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	5 g	60 min	14.2 %
Boil	Mosaic	5 g	60 min	11.8 %
Boil	Simcoe	5 g	60 min	13.3 %
Boil	Mosaic	10 g	15 min	11.8 %
Boil	Simcoe	10 g	15 min	13.3 %
Boil	Citra	15 g	5 min	14.2 %
Boil	Mosaic	24 g	5 min	11.8 %
Boil	Simcoe	6 g	5 min	13.3 %
Dry Hop	Enigma (AUS)	50 g	3 day(s)	17.2 %

Dry Hop	Vic Secret	50 g	3 day(s)	16.3 %
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Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	Safale