

BLACK IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **51**
- SRM **29.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **32.9 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **25.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **33.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	5 kg (68.5%)	81 %	5
Grain	Żytni	1 kg (13.7%)	85 %	8
Grain	Weyermann - Chocolate Rye	0.5 kg (6.8%)	20 %	493
Grain	Płatki żytnie	0.4 kg (5.5%)	60 %	3
Grain	Weyermann - Dehusked Carafa III	0.4 kg (5.5%)	70 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	33 g	60 min	16.1 %
Boil	Citra	50 g	5 min	12 %
Boil	Simcoe	50 g	0 min	13.2 %
Boil	Cascade	50 g	0 min	6 %
Dry Hop	Citra	50 g	---	12 %
Dry Hop	Cascade	50 g	---	6 %
Dry Hop	Mosaic	50 g	---	12.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lutra OYL-071	Ale	Slant	100 ml	---