

Black IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **47**
- SRM **33.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski typ II	1.7 kg (37.8%)	79 %	22
Grain	Carafa III	0.2 kg (4.4%)	70 %	1034
Grain	Caraaroma	0.5 kg (11.1%)	78 %	400
Grain	Weyermann - Pale Ale Malt	1.7 kg (37.8%)	85 %	7
Grain	Słód Caramunich Typ II Weyermann	0.4 kg (8.9%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	10 g	60 min	7.1 %
Boil	Sybilla	20 g	5 min	3.5 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %
Boil	Styrian Golding	20 g	30 min	3.6 %
Boil	Citra	10 g	60 min	12 %
Boil	Nectaron	10 g	30 min	10.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Water Agent	siarczan magnezu	2 g	Mash	---