

## #46 Triple Black IPA

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- Gravity **22.9 BLG**
- ABV **10.4 %**
- IBU **76**
- SRM **76.8**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **70 C**, Time **20 min**
- Temp **64 C**, Time **40 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **70C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3 kg (33%)	79 %	16
Grain	Viking Pale Ale malt	2 kg (22%)	80 %	5
Liquid Extract	WES ekstrakt słodowy ciemny	3 kg (33%)	80 %	700
Grain	Karmelowy 200 EBC	0.3 kg (3.3%)	75 %	200
Grain	Strzegom pszenica prażona	0.3 kg (3.3%)	70 %	1000
Grain	Płatki żytnie	0.5 kg (5.5%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.8 %
Boil	Simcoe	20 g	30 min	13.3 %
Aroma (end of boil)	Simcoe	30 g	10 min	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us-5	Ale	Slant	200 ml	safale