

## #3 Black IPA

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **73**
- SRM **30.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **31.7 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6.9 kg (87%)	80 %	5
Grain	Strzegom Karmel 150	0.57 kg (7.2%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.46 kg (5.8%)	68 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	90 g	80 min	9.5 %
Dry Hop	Amarillo	50 g	4 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-04	Ale	Dry	10 g	---

### Extras

Type	Name	Amount	Use for	Time
Fining	whirflock	5 g	Boil	10 min

### Notes

- gotowanie 30/08/2018, filtrowanie w nocy od 22 podczas ciemny sód czekoladowy poszedł na ok 1,5 h przed końcem whirflock - 20 minut przed końcem chmielenie 01/09/2018 po chmieleniu blg 18,7  
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