

# Wrona Black IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **68**
- SRM **37.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **65 C**, Time **55 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **55 min** at **65C**
- Keep mash **5 min** at **76C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (27.6%)	61 %	5
Grain	Strzegom Pilzneński	1 kg (27.6%)	60 %	4
Grain	Płatki owsiane	0.4 kg (11%)	70 %	3
Grain	Pszeniczny	0.5 kg (13.8%)	70 %	4
Grain	Strzegom Barwiący	0.175 kg (4.8%)	68 %	1000
Grain	Strzegom pszenica prażona	0.124 kg (3.4%)	70 %	1000
Grain	Strzegom Karmel 300	0.3 kg (8.3%)	69 %	299
Sugar	Glukoza	0.13 kg (3.6%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	25 g	55 min	13.7 %
Whirlpool	Simcoe	15 g	1 min	13.7 %
Dry Hop	Simcoe	43 g	5 day(s)	13.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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us-05	Ale	Slant	200 ml	---
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	2 g	Boil	60 min

### Notes

- Za duża paloność.  
W wersji 2.0 słody barwione pójdą na koniec z coldbrew.  
Chmienie na wyższym poziomie na aromat i na zimno.  
Reszta ok, profil czysty.  
*Nov 19, 2018, 3:07 PM*