

## #6 Black Ninja

- Gravity **17.2 BLG**
- ABV ---
- IBU **58**
- SRM **40**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **23.5 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **70 C**, Time **20 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **16.6 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **75C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5.5 kg (79.7%)	85 %	0
Grain	Biscuit Malt	0.2 kg (2.9%)	79 %	45
Grain	Strzegom Czekoladowy ciemny	0.5 kg (7.2%)	68 %	1200
Grain	Strzegom Karmel 30	0.7 kg (10.1%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Vic Secret (AUS)	20 g	60 min	16.1 %
Boil	Green Bullet	20 g	45 min	11 %
Aroma (end of boil)	Simcoe	15 g	5 min	13 %
Aroma (end of boil)	Citra	15 g	5 min	12 %
Dry Hop	Simcoe	15 g	8 day(s)	13 %
Dry Hop	Citra	15 g	8 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-5	Ale	Slant	100 ml	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	4 g	Mash	60 min
Other	Cukier	150 g	Bottling	---