

# Darth Vader - Black IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **57**
- SRM **23.9**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **15 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.2 liter(s)**

## Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (82.8%)	80 %	5
Grain	Strzegom Karmel 150	0.1 kg (1.7%)	75 %	150
Grain	Weyermann - Dehusked Carafa II	0.5 kg (8.3%)	70 %	837
Grain	Biscuit Malt	0.25 kg (4.1%)	79 %	45
Sugar	trzciny	0.192 kg (3.2%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Amarillo	20 g	45 min	9.2 %
Boil	Amarillo	25 g	15 min	9.5 %
Boil	Simcoe	20 g	15 min	13.2 %
Boil	Simcoe	30 g	0 min	13.2 %
Dry Hop	Cascade	50 g	3 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	666 ml	Danstar