

# Darth Vader - Black IPA

- Gravity **15.4 BLG**
- ABV ---
- IBU **51**
- SRM **39.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

## Steps

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

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (84.6%)	81 %	4
Grain	Strzegom Karmel 150	0.1 kg (1.7%)	75 %	150
Grain	Weyermann - Dehusked Carafa II	0.5 kg (8.5%)	70 %	837
Grain	Biscuit Malt	0.25 kg (4.2%)	79 %	45
Grain	Strzegom Czekoladowy ciemny	0.06 kg (1%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	26 g	60 min	10.5 %
Boil	Lomik	5 g	60 min	4 %
Boil	Challenger	30 g	45 min	5.8 %
Boil	Willamette	10 g	15 min	5.5 %
Boil	Vic Secret	5 g	15 min	16.6 %
Boil	Vic Secret	25 g	0 min	16.6 %
Dry Hop	Vic Secret	21 g	4 day(s)	16.6 %
Dry Hop	cascade	38 g	4 day(s)	6.7 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Safale US-05	Ale	Slant	230 ml	Fermentis