

# Darth Vader - Black IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **57**
- SRM **31.7**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **15 %**
- Size with trub loss **25.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

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

## Mash step by step

- Heat up **21.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (82.6%)	81 %	4
Grain	Strzegom Bursztynowy	0.25 kg (4.1%)	70 %	49
Grain	Barwiący obłuszczony	0.5 kg (8.3%)	80 %	1300
Grain	Viking Caramel Aromatic	0.3 kg (5%)	75 %	180

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	50 min	12.6 %
Boil	Citra	15 g	50 min	13.5 %
Boil	Simcoe	25 g	5 min	12.6 %
Boil	Citra	25 g	5 min	13.5 %
Boil	Galaxy	25 g	5 min	13.2 %
Whirlpool	Galaxy	23.5 g	15 min	13.2 %
Hopstand w 80 st.				
Dry Hop	Simcoe	20 g	4 day(s)	13.2 %
Dry Hop	Citra	25 g	4 day(s)	12 %
Dry Hop	Equinox	45 g	4 day(s)	13.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Vermont Ale	Ale	Slant	100 ml	Yeast Bay

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	6 g	Boil	10 min