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 %

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

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