

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 |