

Black Attack

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **66**
- SRM **22.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **68 C**, Time **30 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **68C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pilsner malt | 4.5 kg (84.9%) | 82 % | 4 |
| Grain | Carabody Viking Malt | 0.3 kg (5.7%) | 78 % | 6 |
| Grain | Dextrin - Crisp | 0.2 kg (3.8%) | 82 % | 2.8 |
| Grain | Jęczmień palony - Weyermann | 0.2 kg (3.8%) | 70 % | 1200 |
| Grain | Carafa typ III - Weyermann | 0.1 kg (1.9%) | 70 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Columbus | 15 g | 60 min | 15.4 % |
| Boil | Simcoe | 25 g | 30 min | 12.8 % |
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| Aroma (end of boil) | Wai-iti | 50 g | 0 min | 2.5 % |
| Dry Hop | Strata | 50 g | 3 day(s) | 14.5 % |
| Dry Hop | Simcoe | 50 g | 3 day(s) | 12.8 % |

Yeasts

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

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------------|-------------|---------------|-------------------|
| Danstar - Nottingham | Ale | Dry | 11 g | Danstar |