# Black IPA

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **33**
- SRM **31.4**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **17.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **0 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Pale Ale | 3 kg *(48.4%)* | 80 % | 5 |
| Grain | Pilzneński | 1.5 kg *(24.2%)* | 81 % | 4 |
| Grain | Thomas Fawcett - Crystal | 0.7 kg *(11.3%)* | 70 % | 160 |
| Grain | Carafa II | 0.5 kg *(8.1%)* | 70 % | 1000 |
| Grain | Biscuit Malt | 0.25 kg *(4%)* | 79 % | 45 |
| Sugar | Cukier | 0.25 kg *(4%)* | 100 % | --- |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Centennial | 20 g | 50 min | 10.5 % |
| Boil | Cascade | 20 g | 30 min | 6 % |
| Boil | Willamette | 20 g | 15 min | 5 % |
| Dry Hop | Centennial | 30 g | 2 day(s) | 10.5 % |
| Dry Hop | Cascade | 30 g | 2 day(s) | 6 % |
| Dry Hop | Willamette | 30 g | 2 day(s) | 5 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|

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

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| us-05 | Ale | Dry | 12.5 g | --- |