

# Black IPA

- Gravity **15 BLG**
- ABV ---
- IBU **49**
- SRM **40**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **32 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **28.1 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **68.6C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **32 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt    | 5.5 kg (82.1%) | 80 %  | 7    |
| Grain | Strzegom Karmel 600       | 0.5 kg (7.5%)  | 68 %  | 601  |
| Grain | Carafa III                | 0.4 kg (6%)    | 70 %  | 1034 |
| Grain | Strzegom pszenica prażona | 0.3 kg (4.5%)  | 70 %  | 1000 |

## Hops

| Use for   | Name      | Amount | Time     | Alpha acid |
|-----------|-----------|--------|----------|------------|
| Boil      | Cascade   | 20 g   | 60 min   | 8 %        |
| Whirlpool | Cascade   | 30 g   | 30 min   | 6 %        |
| Whirlpool | El Dorado | 30 g   | 30 min   | 15 %       |
| Whirlpool | ctz       | 30 g   | 30 min   | 15.7 %     |
| Dry Hop   | El Dorado | 18 g   | 2 day(s) | 15 %       |
| Dry Hop   | ctz       | 28 g   | 2 day(s) | 13.2 %     |
| Dry Hop   | Chinook   | 30 g   | 2 day(s) | 13 %       |
| Whirlpool | Cascade   | 20 g   | 2 min    | 6 %        |

**Yeasts**

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | Safale     |