

# Black IPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **66**
- SRM **28.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC  |
|-------|------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale      | 5.02 kg (81%)  | 79 %  | 6    |
| Grain | Strzegom Karmel 150    | 0.29 kg (4.7%) | 75 %  | 150  |
| Grain | Carahell               | 0.4 kg (6.5%)  | 77 %  | 26   |
| Grain | Weyermann - Carafa III | 0.48 kg (7.8%) | 70 %  | 1024 |

## Hops

| Use for             | Name     | Amount  | Time     | Alpha acid |
|---------------------|----------|---------|----------|------------|
| Boil                | Simcoe   | 16.15 g | 60 min   | 13.2 %     |
| Aroma (end of boil) | Simcoe   | 24.23 g | 30 min   | 13.2 %     |
| Aroma (end of boil) | Simcoe   | 16.15 g | 10 min   | 13.2 %     |
| Aroma (end of boil) | Amarillo | 16.15 g | 10 min   | 9.5 %      |
| Aroma (end of boil) | Citra    | 16.15 g | 10 min   | 12 %       |
| Dry Hop             | Simcoe   | 64.62 g | 7 day(s) | 13.2 %     |
| Dry Hop             | Amarillo | 64.62 g | 7 day(s) | 9.5 %      |
| Dry Hop             | Citra    | 64.62 g | 7 day(s) | 12 %       |

## Yeasts

| <b>Name</b>  | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale         | Dry         | 11.05 g       | Fermentis         |